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**PANAMA CANAL COMPANY
CANAL ZONE GOVERNMENT**

ANNUAL REPORT

FISCAL YEAR ENDED JUNE 30, 1958



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PANAMA CANAL COMPANY

Balboa Heights, Canal Zone

OFFICE OF THE PRESIDENT

January 5, 1959.

TO THE STOCKHOLDER OF THE PANAMA CANAL COMPANY:

The year just ended broke all records for number of ships transiting the Panama Canal and tolls collections. A total of 9,466 oceangoing vessels were transported from ocean to ocean. These ships sailed under the flags of some 36 different nations of the world.

This record level of traffic was handled with a minimum of delays to our customers. This accomplishment is especially significant in view of the fact that the periodic overhaul of the Pacific locks was performed during this period.

Work was started on the canal improvements which were developed and approved in connection with the Short Range Panama Canal Improvements Study of 1957. These improvements are designed to increase the capacity of the canal to handle the anticipated volume of traffic for the next decade.

The Board of Directors, through a committee consisting of three members, continues the studies of longer range canal requirements. Several elements of these studies, notably the future traffic projections, have been completed.

Down through the years the Panama Canal has kept pace with world shipping requirements. It is the intention of your Board of Directors to keep well ahead of future demands on the canal by timely recommendations for needed improvements.

By order of the Board of Directors.



W. E. POTTER,
President.



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Introduction

THE CANAL

The Panama Canal is a lock-type canal that connects the Atlantic and the Pacific Oceans through the Isthmus of Panama, traversing a distance of approximately 51 miles from deep water to deep water. In the dredged channel, the canal has a minimum width of 300 feet and a minimum depth of 42 feet. The greatest part of the canal channel is at the level of Gatun Lake, the surface of which is normally 85 feet above sea level. In transiting the canal a ship is raised in three steps from sea level to the level of Gatun Lake, and subsequently lowered in three steps to sea level at the other side of the isthmus. The six steps or flights of locks are in duplicate, to enable simultaneous lockage of two ships transiting in the same direction or of ships passing in opposite directions.

The past fiscal year marked the completion of 44 years of successful operation of the canal. The canal was opened on August 15, 1914, and has served world commerce without major interruption since fiscal year 1916, when the last canal-closing slide occurred in Gaillard Cut at the Continental Divide. A total of 274,529 vessels of all types have made the canal transit, of which 206,734 were oceangoing commercial vessels plying the various channels of world trade. The service provided by the canal has, moreover, been of incalculable value to the United States and her allies in time of war.

ORGANIZATION

The Panama Canal Company Act, which created the Panama Canal Company and defined its basic purposes, organization, rights, powers, and obligations, constitutes article 3 of chapter 12 of Title 2, Canal Zone Code, consists of sections 245 to 258 of Title 2, Canal Zone Code, and was enacted by the act of June 29, 1948 (62 Stat. 1076), as amended by the act of September 26, 1950 (64 Stat. 1041). This act became effective on July 1, 1951, pursuant to the provisions of Executive Order 10263 of June 29, 1951. In its capacity as owner of the Company, the U.S. Government is represented by the Secretary of the Army, referred to as "Stockholder," in his individual capacity as the personal representative of the President of the United States for such purpose. The Company operates under the management of a Board of Directors appointed by the Stockholder. The Company is charged with the maintenance and operation of the Panama Canal and the conduct of the business-type operations incident to such maintenance and incident to the civil government of the Canal Zone.

The Company and the Canal Zone Government, the independent agency of the United States charged with the civil government of the Canal Zone, are closely interrelated in mission, organization, and operations. The combined function of these agencies is the administration of the Panama Canal enterprise as a whole. The Governor of the Canal Zone, who is charged with the administration of the Canal Zone

Government, under the supervision of the Secretary of the Army, is ex officio a director and President of the Company.

The Panama Canal Company is expected (a) to recover all costs of operation and maintenance of its facilities, including depreciation; (b) to pay interest to the Treasury on the net direct investment of the Government in the Company; and (c) to reimburse the Treasury for (1) the annuity payments to the Republic of Panama under the convention of 1903 as modified by the treaty of 1936 between the two governments, and (2) the net costs of operation of the Canal Zone Government, including depreciation on fixed assets. The interest rate for the fiscal year 1958, as set by the Secretary of the Treasury, was 2.482 percent. The Board of Directors is required to appraise, at least annually, the Company's working capital requirements, together with reasonable foreseeable requirements for authorized plant replacement and expansion, and to pay into the Treasury as a repayment of capital the amount of any funds in excess of such requirements. All funds other than working balances are carried with the U.S. Treasury.

The activities of the Company are classified under two major headings, namely: (a) the canal and (b) supporting operations. Category (a) embraces those functions directly related to the waterway and the transiting of ships and to services to shipping, including maintenance of the canal channel, maintenance and operation of the locks, meteorology and hydrographic services, and a ferry service across the canal at Balboa. The supporting operations include vessel repairs, and harbor terminal operations, a railroad across the isthmus, a steamship line operating between New York and the Canal Zone, motor transportation facilities, storches, an electric power system, a communications system, and service activities that are essential to employees' needs including the operation of quarters, retail stores, and service centers.

TOLLS RATES

The rates of canal tolls remained unchanged during the year. These rates are as follows:

(a) On merchant vessels, Army and Navy transports, tankers, hospital ships, supply ships, and yachts, when carrying passengers or cargo: 90 cents per net vessel-ton of 100 cubic feet of actual earning capacity—that is, the net tonnage determined in accordance with the Rules for the Measurement of Vessels for the Panama Canal;

(b) On such vessels in ballast, without passengers or cargo: 72 cents per net vessel-ton;

(c) On other floating craft: 50 cents per ton of displacement.

Tolls charges for the canal remain substantially at the level established in 1912 in anticipation of the completion of the construction of the canal.

**BOARD OF DIRECTORS AND GENERAL OFFICERS OF THE PANAMA
CANAL COMPANY AS OF JUNE 30, 1958**

Board of Directors

Hon. WILBER M. BRUCKER, Secretary of the Army, <i>Stockholder</i>	
Hon. George H. Roderick, Assistant Secretary of the Army, Chairman of the Board.	Howard C. Petersen.
John H. Blaffer.	Maj. Gen. William E. Potter, USA.
Robert P. Burroughs.	Charles S. Reed.
Ralph H. Cake.	Ogden R. Reid.
Maj. Gen. Glen E. Edgerton, USA (Ret.).	Maj. Gen. Julian L. Schley, USA (Ret.).
John W. Martyn	Ralph A. Tudor.

General Officers

GEORGE H. RODERICK, *Chairman of the Board.*
 Maj. Gen. WILLIAM E. POTTER, USA, *President.*
 Col. HUGH M. ARNOLD, USA, *Vice President.*
 PHILIP L. STEERS, Jr., *Comptroller.*
 WILLIAM M. WHITMAN, *Secretary.*

COMPARATIVE TABULATIONS OF HIGHLIGHTS OF OPERATIONS

	<i>Fiscal year</i>	
	<i>1958</i>	<i>1957</i>
Net income-----	\$2,826,381	\$3,821,456
Number of oceangoing transits:		
Commercial-----	9,187	8,579
U.S. Government-----	279	269
Total-----	<u>9,466</u>	<u>8,848</u>
Tolls earnings (including small vessels):		
Commercial-----	41,843,525	38,513,404
U.S. Government-----	990,481	1,140,116
Total-----	<u>42,834,006</u>	<u>39,653,520</u>
Total cargo transiting (long tons)-----	48,934,829	50,649,835
Lockages:		
Gatun-----	8,548	8,053
Pedro Miguel-----	8,815	8,260
Miraflores-----	8,655	8,244
Terminals operations (tons of cargo handled, transferred, and stevedored at piers)-----	1,833,087	2,049,605
Oil handling (number of barrels pumped)-----	16,410,902	16,948,273
Maintenance of channel (cubic yards dredged)-----	5,156,700	5,010,600
Number of full-time company employees (as of June 30):		
U.S. rate-----	2,755	2,697
Canal Zone rate-----	8,391	8,154
Total Company employees-----	<u>11,146</u>	<u>10,851</u>

SUMMARY

Panama Canal Company Operations

Canal traffic.—Commercial transits and tolls reached an alltime high record in 1958. For the seventh consecutive year tolls paid on such vessels exceeded previous records. Total oceangoing transits in fiscal year 1958 advanced to 9,466, and tolls revenues from oceangoing ships to \$42,768,015, gains of 7 percent and 8 percent, respectively, over the previous year.

This record level of traffic was handled with a minimum of delay to shipping customers. The accomplishment is especially noteworthy in view of the fact that the periodic overhaul of the Pacific Locks, comprising two out of the three sets of locks, was performed during the fiscal year period.

Cargo moving through the canal totaled 48,916,119 long tons, the second highest tonnage in the history of the canal, and only 3 percent below the alltime high established in 1957.

Commercial traffic comprised 94 percent of the combined commercial/Government total in 1958. Oceangoing commercial transits of 9,187 exceeded by 7 percent the record of 8,579 established in 1957; commercial tolls collected amounted to \$41,795,905, a gain of 8.7 percent, while commercial cargo totaled 48,124,809 long tons, 3 percent under the previous year.

Of the total cargo transiting in commercial bottoms during the year, 23,580,878 long tons moved from the Atlantic to the Pacific, a decrease of 7 percent under the tonnage moving in that direction in 1957. The Pacific-to-Atlantic volume totaled 25,354,239 long tons, a gain of about 5 percent over 1957.

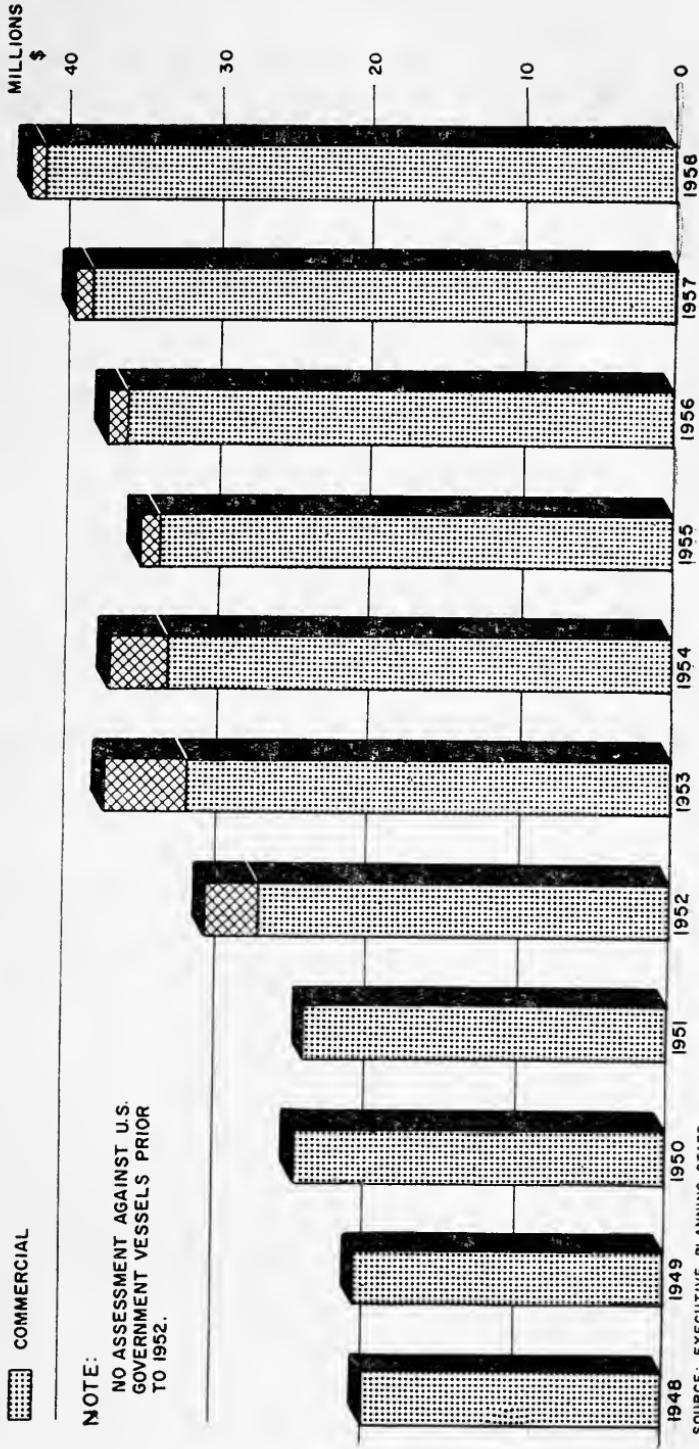
The grand total of transits for the year by all classes and sizes of tolls-paying vessels was 10,553.

During the month of March 1957, oceangoing traffic through the canal established a record high total of 840 transits, the highest month in the history of the canal. In October 1957, the second highest total, 836 transits, were recorded. Further records established in fiscal year 1958 included total tolls revenues of \$42,834,006, while cargo movements totaling 48,934,829 long tons were the second highest in the canal's history.

One of the significant features contributing to the increase of commercial traffic during the year was the abnormal rise in the number of vessels transiting in ballast. An appreciable increase was noted as early as the close of the first quarter, in the number of tankers, cargo vessels, and ore carriers transiting without cargo. The increase in ballast tonnage of tankers is due principally to the heavy movements of Venezuelan and West Indies mineral oils through the canal to the Pacific, with tankers returning empty. The newly built bulk carriers of large capacity have stimulated movements of oil and ores, and usually go one direction in ballast. Most of the ballast tonnage is normally attributable to general cargo vessels and consists of fruit ships returning empty to the banana ports of Central and South America; however, an increasing number of dry-cargo vessels moved through the canal with empty holds during the past year. This situation is indicative of reduced cargo movements, low charter rates, or a combination of both of these factors.

PANAMA CANAL TOLLS
FISCAL YEARS 1948-1958

U.S. GOVERNMENT
COMMERCIAL



NOTE:

NO ASSESSMENT AGAINST U.S.
GOVERNMENT VESSELS PRIOR
TO 1952.

SOURCE: EXECUTIVE PLANNING STAFF

Financial review

It is again a pleasure to report that the Panama Canal Company has finished another year without cost to the American taxpayer, thus completing 7 successive years of operation without loss since its re-organization on July 1, 1951.

As to dollar volume of traffic, fiscal year 1958 was the best in the history of the Panama Canal. Gross tolls amounted to a record \$42.8 million.

Revenues exceeded expenses by \$2.7 million for the year, after provision for (1) payments to the U.S. Government of \$20 million covering interest, net cost of the Canal Zone Government, and annuity payments to the Republic of Panama; and (2) retroactive costs of approximately \$1 million for various wage increases granted toward the close of the year or during the first quarter of fiscal year 1959. Expenses do not reflect depreciation charges against certain assets (historically classified as nondepreciable), such as the excavation of the canal channel and other similar items valued at \$282.1 million.

We are pleased to report that the Company's financial statements for fiscal year 1957 have been certified by the Comptroller General of the United States. This certification was made possible as a result of approval by the Director of the Bureau of the Budget of the valuation of certain assets included in the U.S. Government's net direct investment in the Company, final disposition of a major lawsuit involving toll rates, and the satisfactory results of an independent audit made by the General Accounting Office.

Financial statements and comments appear in chapters 5 and 7, respectively.

Chapter I

REVIEW OF CANAL TRAFFIC

OCEANGOING TRAFFIC¹

Another significant story in Panama Canal traffic records became apparent as early as March 1958. At the close of the fiscal year the number of oceangoing transits, the net tonnage of vessels, and the receipts for tolls from vessels transiting the canal exceeded those in any preceding year in the history of the canal operations. This marked the seventh consecutive year that new records have been established for commercial traffic using the waterway.

The number of commercial ships transiting the canal averaged 25.2 per day, and for the first time such transits exceeded the 9,000 mark for a single year, recording a total of 9,187 transits for this fiscal period. A grand total of 9,466 oceangoing vessels made the passage during the year; of these, 9,187 were of strictly commercial types, and the other 279 were U.S. Government owned or controlled vessels.

Flags of 36 nations were flown over the commercial ships transiting, for which the Panama Canal Company received \$41,795,905 in tolls for services rendered; in addition, \$972,109 was received in tolls credits from the U.S. Government vessels. The \$42,834,000 paid and credited in tolls during the year marked the first time in the history of the waterway that such income has exceeded the \$40 million total. This is an increase of 8 percent above the previous year's figures. U.S. owned or controlled vessels that transited during the year were at their lowest level since 1940. This was the first year since 1940 that income from this classification of ships fell below \$1 million.

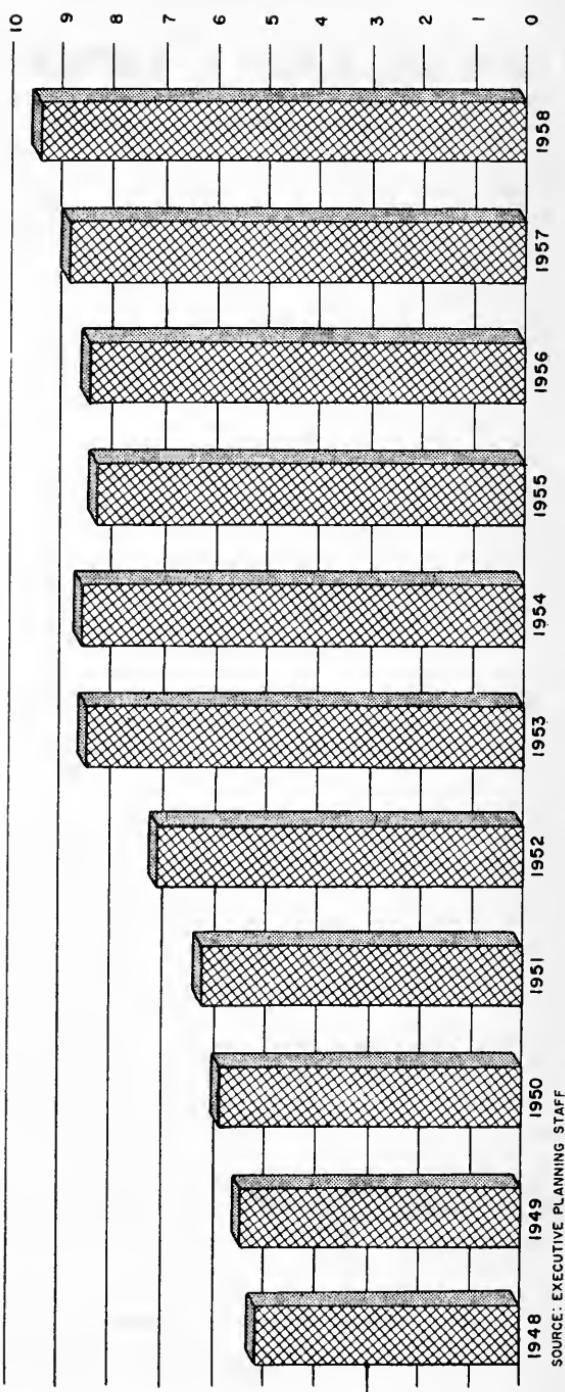
Commercial cargo tonnage passing through the canal failed by 1,577,391 long tons of equaling the record established during the previous year. However, the 48,125,000 long tons of commercial cargo transiting did establish the second highest tonnage in the history of the canal. The Pacific-to-Atlantic flow of cargo regained its first-place position and established a new record with 25,281,508 long tons of cargo. On the other hand, the Atlantic-to-Pacific movements of cargo were 10 percent below the volume that moved in this direction during the previous year. This decline is attributed to a sharp reduction in shipments to Japan which were down by some 2,240,000 long tons from the previous fiscal year. Scrap metal shipments to Japan were 965,000 long tons lower than in the previous year, accounting for a large part of this decline.

The declining movement of cargo to Japan contributed significantly to the fact that the volume of U.S. exports that passed through the waterway was some 2,777,000 long tons short of the volume which transited the canal during the previous 12-month period. Some 17,867,000 long tons of cargo transiting the canal this fiscal year originated in the United States, and import tonnage to the United

¹ Vessels of 300 tons and over (Panama Canal measurement) for vessels rated on net tonnage, or of 500 tons, displacement and over for vessels rated on displacement tonnage (naval vessels, dredges, etc.).

OCEAN-GOING TRANSITS

FISCAL YEARS 1948-1958

THOUSANDS
OF
TRANSITS

SOURCE: EXECUTIVE PLANNING STAFF

States which passed through the canal during the year established a new high of some 18,690,000 long tons, a gain of 13 percent above the previous year.

The increasing size of commercial ships using the Panama Canal is bringing increasingly larger tolls per transit. In fiscal year 1952, the average amount collected per transit was \$4,127; during fiscal year 1958, this per transit average increased to \$4,549. The growth in larger ships is probably best illustrated by the fact that since 1955 ships transiting the canal in a single year with beams of 86 feet or greater have increased from 13 such ships to a total of 109 for the year just concluded. Clear-cut transits have increased from 696 in 1955 to 1,087 in 1958, or 56 percent. This type of transit is of significant importance because of its effect on the capacity of the canal. The average oceangoing commercial vessel transiting was slightly larger than in previous years, averaging 5,221 Panama Canal net vessel tons in comparison with the 5,088 average in 1957.

A tabulation of the four principal features of traffic for the fiscal years 1958, 1957, and 1956 is shown below:

	Fiscal year		
	1958	1957	1956
Number of oceangoing transits-----	9,466	8,848	8,475
Net tonnage (Panama Canal measurement)-----	49,110,351	45,018,760	42,685,742
Cargo (long tons of 2,240 pounds)-----	48,916,119	50,624,373	46,269,163
Tolls and tolls credits-----	\$42,768,015	\$39,561,595	\$37,369,533

OTHER TRAFFIC

In addition to the oceangoing vessels, 1,087 small craft of less than 300 net tons, Panama Canal measurement (or under 500 displacement tons on vessels assessed on displacement tonnage), transited the canal during fiscal year 1958. Transits of these small vessels have but slight effect on workloads and tolls revenue volume, and are generally excluded from analysis of canal operations. Also excluded from the preceding table are statistics on 55 vessels exempted from tolls charges, including vessels owned, operated, or chartered by the Government of the Republic of Panama, war vessels of the Republic of Colombia, and vessels transiting the canal solely for repairs at the Panama Canal shops. Further details on this traffic will be found in table 26, chapter V, page 109.

COMMERCIAL TRAFFIC HIGHLIGHTS

In October 1957, the Grace liner *Santa Mercedes*, made the 200,000th commercial transit of the waterway, less than 8 years after the SS *Nevadan* of the American Hawaiian Line became the 150,000th customer, April 26, 1951. It was on October 10, 1938, that the *Steel Export*, operated by the Isthmian Steamship Line, made the 100,000th transit of the canal.

PRINCIPAL TRADE ROUTES

Approximately 79 percent of the commercial traffic served by the Panama Canal in fiscal year 1958 moved over eight main routes of trade. The table below shows the net vessel tonnage (Panama Canal measurement) moving over these routes in fiscal year 1958 and 1957, with the percentage change between the 2 years.

Trade route	Fiscal year		
	1958 (In thousands of Panama Canal net tons)	1957	Percent in- crease or (decrease)
East coast United States/Canada and Asia-----	9,282	9,232	0.5
East coast United States and west coast South America-----	8,421	6,739	25.0
Europe and west coast United States/Canada-----	5,386	4,685	15.0
Europe and west coast South America-----	4,566	4,040	13.0
United States intercoastal-----	3,675	3,282	12.0
Europe and Oceania-----	3,014	3,698	(18.5)
East coast United States and west coast Central America/Mexico-----	1,815	1,383	31.2
West coast United States and east coast South America-----	1,769	1,140	55.2
All other-----	9,996	9,429	6.0
Total-----	47,924	43,628	9.8

An increase of 9.8 percent is shown in the volume of net vessel tonnage transiting the canal this fiscal year over the previous year, with the highest volume change in shipments occurring again in the east coast United States and west coast of South America trade.

All the major routes ranking in position 1 to 8 maintained their status in the lineup of principal trade routes served by the canal. The east coast United States and west coast South America area, which retained its second position in importance among the routes, shows the highest percentage gains in both net tonnage and cargo movements. Some gains were reflected on each of the other trade routes with the exception of the route between Europe and Oceania, on which net tonnage declined by 684,000 net tons, or 18.5 percent. The greatest net tonnage gains recorded were in the tonnages between the east coast United States and west coast of South America, up 1,682,000 tons, or 25 percent, and between Europe and west coast United States/Canada, which increased by 701,000 tons, or 15 percent.

A brief discussion of shipping engaged in these trade routes is given in the following paragraphs:

East coast United States/Canada-Asia.—Traffic in these two important areas retained first-place position for the seventh consecutive year among the various trade routes served by the canal. The volume of net tonnage used on this route, Panama Canal measurement, established a new high, however, the volume of cargo moving between the two areas was 18 percent below the previous year, yet accounted for some 42 percent of all the Pacific-bound cargo. Again, Pacific-bound traffic accounted for the majority of the net tonnage, forming 67 percent of a total of 9,282,000 net tons. Substantial losses were sustained in cargo shipments in the east-to-west movement, principally in rice, ammonium compounds, iron and steel manufactures, scrap and various other metals, and phosphates. The decrease in scrap iron shipments alone accounted for some 980,000 long tons. On the other hand, noticeable increases in this direction were made in exports of corn, up



SS "Santa Mercedes" Making 200,000th Commercial Transit of Canal.



The "Vanda," of Honduran Registry, Completed 50 Transits During Fiscal Year 1958.

190,000 long tons, soybeans increased by 121,000 long tons, with wheat beginning a substantial movement for the first time since 1955.

In the other movement, west to east, a decrease of some 282,000 long tons was experienced under the 1957 period, with losses in shipments of chrome ore and sugar predominating and accounting for 232,000 tons, or 82 percent of the total tonnage lost.

East coast United States-west coast South America.—For the seventh consecutive year this trade route continued its spectacular rise in all phases of shipping, and held its second-ranking position in importance to the Panama Canal. The net tonnage moving over this route increased by a significant rise of 1,682,000 net vessel tons, a 25-percent increase over the volume moving during the preceding year. This is the most impressive gain among the various trade routes. It is over this lane that the large quantitites of essential raw materials such as the various ores flow to the industrial areas of the United States. Usually, the volume of net tonnage totals approximately the same in each direction, but during this fiscal year west-to-east movements exceeded east-to-west by 590,000 tons. Eighty-four percent of the cargo tonnage moved west to east during this fiscal year, an increase of 24 percent, despite the existing business recession in progress in the United States. Shipments of iron ore, up by 1,313,000 long tons from the previous year, showed the most significant commodity increase, amounting to 33 percent. Slight increases over last fiscal year were noted in shipments of bananas, coffee, and sugar.

Europe and west coast United States/Canada.—This major route continued to rank third in importance for the seventh consecutive year, accounting for a total of 5,386,000 net vessel tons and showing a gain of 15 percent over last fiscal year. Movements of cargo in this trade are predominantly eastbound and this year's movement in that direction formed 85 percent of the total cargo exchanged by the two regions. Total cargo moving in the trade, amounting to 6,015,000 long tons, showed a slight gain of less than 1 percent. Two commodity groups—lumber and barley—made up 31 percent of the 5,126,000 long tons of cargo shipped eastward, showing gains of 41 percent and 56 percent, respectively, over such shipments last year. Wheat, for years one of the most important commodities shipped in appreciable quantities in the trade, sustained a decided decrease of 552,000 long tons this period, or 23 percent under last year's total of 2,394,000 long tons.

Europe and west coast of South America.—Net vessel tonnage in this route, the fourth-ranking one, was up by slightly more than 500,000 net tons. This is a gain of 13 percent over the preceding fiscal year, when a 10-percent increase was registered in the net tonnage utilized over the route. Coupled with this continued gain in net tonnage volume, of course, is the phenomenal increase in vessels being employed to transport the increasing volume of goods exchanged between the two areas.

Although the volume of goods exchanged between the areas this fiscal year continued to rise, a total of 3,694,000 long tons being recorded in comparison with 3,590,000 tons last year, the 1958 period shows the slightest increase in tons of cargo since 1954 when only 2,025,000 tons was exchanged in the trade. As in past years, the movement of cargo was predominantly west to east which this year accounted for 79 percent of the total cargo moved over the route.

Despite the business recession in progress, which is being felt especially in world commerce, raw materials obtained from the west coast of South America for European industries continued to show increases. Again, as in fiscal year 1956, a very slight decrease in cargo shipments is recorded in the east to west direction, down by 2 percent over 1957 figures.

The most important percentage increase in commodity shipments over the route occurred in bananas, up by 73,000 long tons, or an increase of 37 percent. Shipments of nitrate of soda ranked second in importance of increases with 502,000 long tons, or a rise of 35 percent in comparison with 373,000 long tons in 1957. Iron ore moving from western South America to European ports again showed a slight gain over last year, utilizing 1,064,000 long tons to compare with the 1,009,000 tons in 1957.

Western Germany continued to be the principal recipient of eastward-bound cargo, receiving 964,070 long tons, a gain of 35 percent over last year. The Netherlands ranked in second place, receiving 650,974 long tons, while Great Britain was third with 438,773 tons. Belgium and Germany were again the principal suppliers of westward-bound cargo, with Belgium exporting some 205,000 long tons and Germany 185,000 tons.

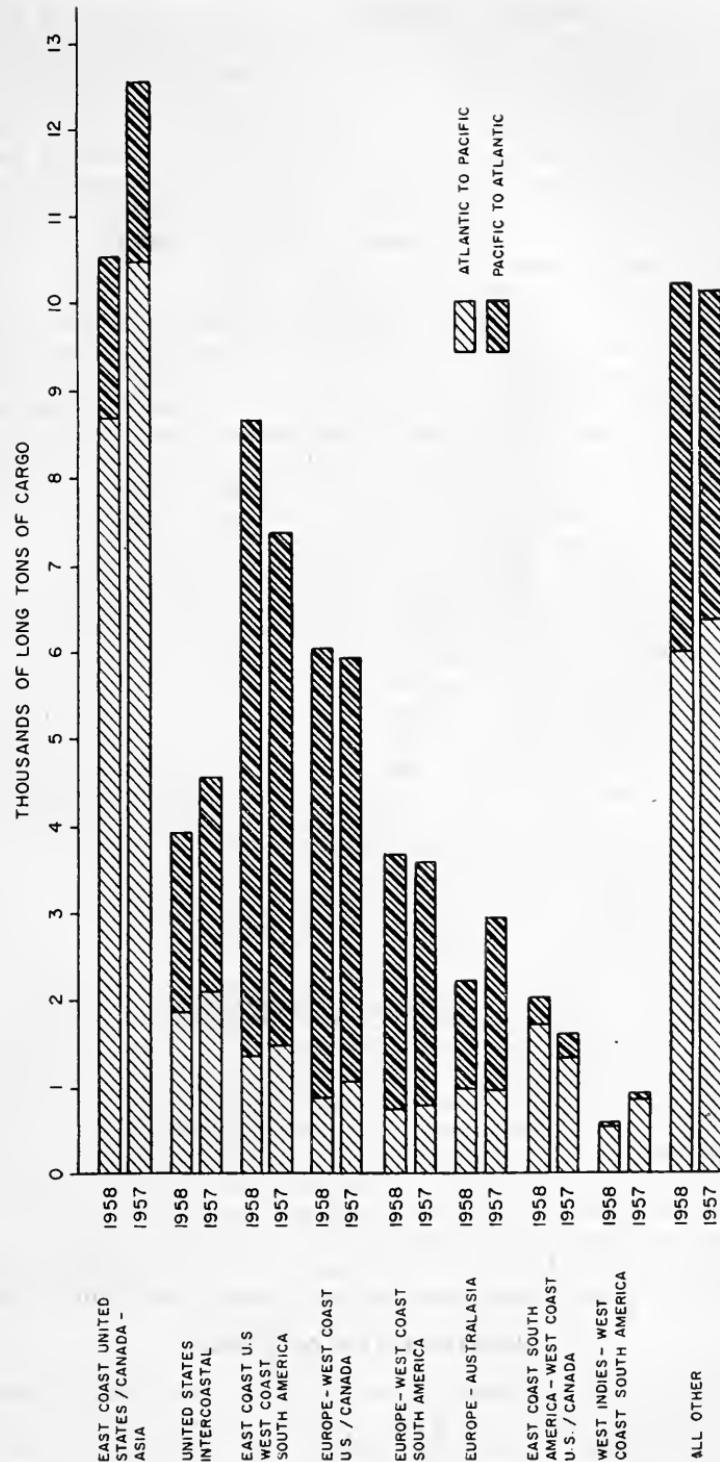
A 69-percent increase in the number of vessels operating in these trade areas is shown within the past 5 fiscal years. From a total of 562 in 1954 to a total of 949 in 1958, there was a total of 387 ships added in the trade with the largest single addition of 114 craft occurring in fiscal year 1958. This is an increase of 39 percent in vessels over the fiscal year 1957.

United States intercoastal.—Retaining its position of fifth place in importance in canal commerce is the trade between the Atlantic and Pacific coasts of the United States. During the period of 1958 overall increases were experienced in all phases of shipping over this route which recorded more vessels plying in the trade, more net vessel tons and cargo tonnage, as well as more tolls collected than was the case in fiscal year 1957. Net vessel tonnage in fiscal year 1958 totaled 3,675,000 tons, an increase of 393,000 tons over last year. The unusually heavy volume of residual oils moving from California during the last quarter of the fiscal year was primarily responsible for the increase, a total of 470,000 net tons moving in 50 tankers during the 3-month period. Total net vessel tonnage in the tanker class in this route amounted to 980,808 tons, up 64 percent over the total of 597,982 tons last year. The remaining net tonnage of 2,694,000 tons consisted of dry cargo type vessels.

Despite the heavy increase in oil shipments of some 279,000 long tons, and a substantial increase of 174,000 tons of unclassified chemicals during the period, only a slight overall gain of 90,000 tons was recorded in cargo movements. Such gains in oils and chemicals were offset by heavy losses in shipments of iron and steel products, a predominant east-to-west trade, down 29 percent from the 1957 fiscal period. Lumber, moving in the opposite direction, contributed a decrease of 97,000 long tons in cargo, a decline of 7 percent from the period last year.

TRAFFIC MOVING OVER PRINCIPAL TRADE ROUTES

FISCAL YEARS 1958 AND 1957



SOURCE: EXECUTIVE PLANNING STAFF

Europe and Oceania.—Reflecting a trend to return to a somewhat more normal status, consistent with commerce prior to the closure of the Suez Canal, this route is the only one out of the eight major trade routes showing an overall decrease. Statisticalwise, 95 fewer vessels, 684,000 fewer net vessel tons, 757,000 fewer long tons of cargo, and \$609,289 less in tolls were derived from these areas during fiscal year 1958 in comparison with the 1957 period. Sustained losses of 20 percent occurred in ships using the route, some 19 percent occurred in net vessel tons, and a 26 percent reduction was felt in total cargo moving over the lane.

Principally a west-to-east movement, this route saw a decline of 760,000 long tons of cargo from the 1957 period, down 39 percent, while a very minute gain in tonnage was shown in the opposite direction for the period. The cargo losses occurred among the most usual commodities shipped to European ports, consisting of copra, dairy and meat refrigerated products, phosphates, sugar, and wool.

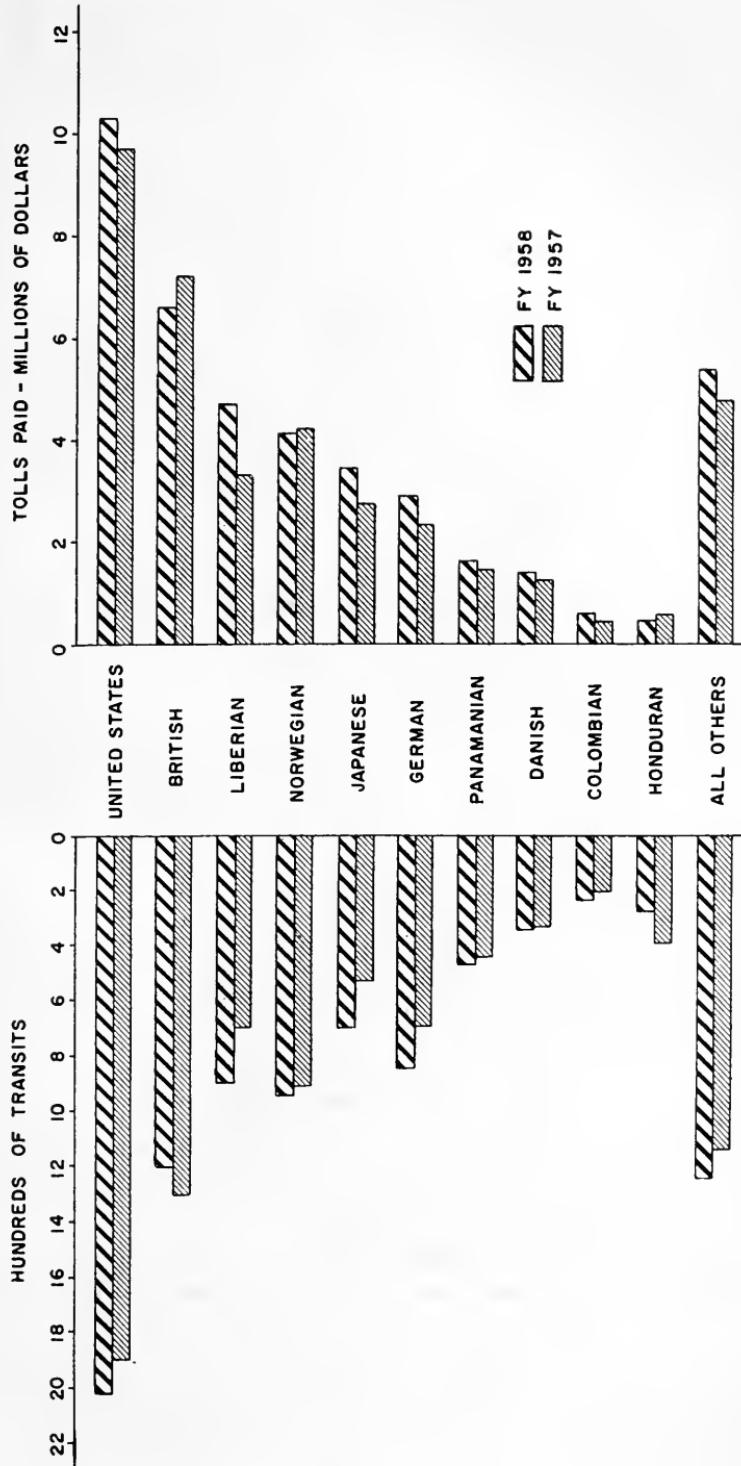
East coast United States and west coast Central America/Mexico.—Traffic routed between these two areas in fiscal year 1958 recorded a percentage increase of 31 percent in volume of net vessel tonnage. This was the second highest percentage gain in net tonnage during the fiscal period. Holding its position as seventh ranking in importance, the trade accounted for 1,815,000 net vessel tons, or a gain of 432,000 tons over the 1,383,000 tons recorded in this trade in 1957. Net vessel and cargo tonnages represented in this route, as in past years, consist mainly of bananas from Costa Rica and Panama to the eastern seaboard. The volume of cargo tonnage in the west-to-east movement alone accounted for 73 percent of the total cargo tonnage gain made during the fiscal year and can be attributed almost solely to the recovery made in the banana trade. Recovering from a disastrous year in 1957, this commodity reached the high peak of 337,000 long tons exported, the highest tonnage attained since fiscal year 1953 when 350,000 long tons were recorded. Manganese ore, the only other commodity shipped in appreciable quantities in the movement, was down slightly but accounted for 102,000 long tons out of the total of 495,000 tons of cargo.

West coast United States and east coast South America.—A newcomer to the list of important trade routes of the Panama Canal just 2 years ago, this route topped all others in gains in net vessel tonnage among the eight major routes. An increased net tonnage of 629,000 was experienced, registering the year-high increase of 55 percent over fiscal year 1957. Increased oil tanker movements alone accounted for 238,000 net vessel tons of this total gain with an increase of 22 tankers plying in the trade. Shipments of crude oil from Venezuela to the west coast of the United States increased from 1,235,000 long tons in 1957 to a high peak of 1,614,000 long tons in 1958, a rise of 31 percent. Of the 1,949,000 long tons of cargo passing over the route in 1958, 88 percent was recorded in the east-to-west movement.

NATIONALITY OF VESSELS

Vessels of 36 nationalities comprised the occangoing commercial traffic in fiscal year 1958, 2 less than in the previous year. Transits of U.S. registry, numbering 2,023, with an aggregate net vessel tonnage, Panama Canal measurement, of 11,672,797 tons ranked

NATIONALITY OF TRANSITTING VESSELS
FISCAL YEARS 1958 AND 1957



first among the nations participating in canal traffic, as they have in almost every year since the opening of the canal in 1914. Traffic of British registry, contributing 1,203 transits registering 7,454,501 net vessel tons, has traditionally ranked second in canal traffic and this position was retained in fiscal year 1958.

Some 2,378 different commercial vessels made 9,187 transits for an average of 3.82 transits per vessel. The number of transits made by such vessels varied from 1 to 50. The greatest number of transits made this year by a single vessel was accomplished by the Honduran-registered *Vanda*, with 50 trips through the channel, transporting bananas from Ecuadorian ports to Florida.

During this year, not only an increase of 104 American-flag transits was recorded over last year's total of 1,919 but an increase of 657,825 net vessel tons, is noted, which accounted for an increase of \$549,022 in tolls collected from U.S.-registered vessels. Vessels under U.S. registry paid 24.6 percent of the total tolls collected and accounted for 22 percent of the total transits made. On the other hand, a loss of 106 British-registered transits was sustained this fiscal year, with a resultant loss in Panama Canal net tonnage of 673,068 tons, and \$641,696 in tolls revenues from British vessels. However, British-flag transits continued to hold second place in importance, paying 16 percent of the tolls collected while making 13 percent of the total transits. Next in importance, and replacing Norway as a tolls-paying customer, is Liberia who accounted for 11 percent of the total tolls with 9.8 percent of the total transits.

Of the 10 top-ranking nationalities contributing 85 percent of the transits, 89.3 percent of the Panama Canal net tonnage, and 89.4 percent of the tolls, the United States led with 24.4 percent of the total net tonnage; British, 15.6 percent; Liberian, 11.8 percent; Norwegian, 10.1 percent; Japanese, 8.2 percent; German, 7.0 percent; Panamanian, 4.2 percent; Danish, 3.4 percent; Italian, 2.4 percent; and the Netherlands, 2.2 percent.

The most striking increase from the previous year, as measured by net vessel tonnage, was made in traffic of vessels flying the Liberian flag. Vessels flying the flag of this nation have steadily climbed from sixth place in importance tonnagewise during the past 4 years, increasing from 1,040,175 net vessel tons in 1954 to 5,633,036 tons in 1958, a gain of 442 percent.

CARGO STATISTICS

Although the combined movement of cargo in both directions this fiscal year fell short of last year's record by 1,577,391 long tons, or a decrease of 3.2 percent, a second-place alltime high record was set with a total of 48,124,809 long tons of cargo.

A substantial gain of 1,009,151 long tons was shown in the Pacific-to-Atlantic flow of cargo over the record established last fiscal year. As a result of this gain, movements in this direction again returned to the leading position, a place it had held each year since the opening of the waterway until 1957 when it was replaced by the Atlantic-to-Pacific movement. The 25,281,508 long tons of cargo moving in the Pacific-to-Atlantic area this fiscal year established a new record by slightly more than 1 million tons over the 24,272,357 tons moving in

that direction last fiscal year. The Atlantic-to-Pacific movement returned to second-place position by sustaining a loss of 2,586,542 long tons this year, down 10.17 percent from the record high figure of 25,429,843 tons in 1957.

Of the 12 commodity groups which have consistently accounted for approximately 75 percent of the volume of cargo passing through the canal, 6 showed increases and the remaining 6 registered declines this period. The six groups registering declines were: other ores and metals, manufactures of iron and steel, wheat, sugar, canned and refrigerated food products, and phosphates.

Average Tonnage, Tolls, and Tons of Cargo per Transiting Vessel

The average measurement of tonnage, tolls, and tons of cargo per oceangoing commercial vessel during fiscal years 1958 and 1957 are shown in the following tabulations:

<i>Average per vessel</i>	<i>Fiscal year</i>	
	1958	1957
Panama Canal net measured tonnage-----	5,217	5,095
Tolls-----	\$4,549	\$4,481
Tolls per Panama Canal net ton-----	\$0.871	\$0.879
Tons of cargo per laden transit-----	6,378	6,779
Tolls per ton of cargo (laden only)-----	\$0.753	\$0.700

DATA IN STATISTICAL CHAPTER

Further particulars of traffic through the canal are presented in chapter V of this report in the form of tables and charts.

Chapter II

THE WATERWAY

The efficient and dependable operation of the Panama Canal is of vital concern not only to maritime interests throughout the world but also to a host of others whose livelihood and general welfare are dependent to some degree upon an even flow of world commerce. The process of getting the ships through the canal and the performance of certain auxiliary or supporting functions are grouped under the classification of "The Waterway," for purposes of this report, and are the primary missions of the Marine Bureau and the Engineering and Construction Bureau. These two Bureaus must provide for the transiting of ships, operation of the locks, maintenance of the canal channel, meteorology and hydrographic work, and ferry service across the canal at Balboa.

TRANSITING OF SHIPS

Traffic control

The dispatch of ships into the canal and their movement through the waterway are closely controlled by the Navigation Division of the Marine Bureau. Dispatches are regulated from each terminal so that all ships that arrive each 24-hour period normally clear the waterway prior to closing time. The following is a summary of the typical operating program in effect at the end of the fiscal year: From Cristobal Harbor, the Atlantic entrance, the first ship begins its southbound transit at 6 a.m., the last at about 4 p.m. From Balboa anchorage, Pacific entrance, the first ship starts northbound at 5:30 a.m., the last at 3:30 p.m.

Certain vessels such as tankers, ore carriers, and those carrying hazardous cargoes are selectively dispatched so that they will not meet or pass any other vessel in Gaillard Cut and are not normally permitted to proceed unless they can clear the cut and the locks during the daylight hours. Such ships are called "daylight clear-cuts."

Since 1951 there has been a significant trend developing in the number of clear-cut and daylight clear-cut transits. Of most importance, because it affects the capacity of the canal, are the increases in large size vessels. From 1955 through fiscal year 1958, vessels of 79-foot beam and above have increased by over 500 percent. The number of vessels of this size transiting in 1958 exceeded the number handled during 1957 by more than 25 percent.

Harbor work

Five tugs were in service throughout the year—three at the Atlantic terminal and two at the Pacific terminus. The tugs operated a total of 12,784 revenue-hours in the servicing and assisting of ships, in comparison with the 12,803 revenue-hours in fiscal year 1957.

Towing and salvage

The Company's salvage tug, U.S. *Taboga*, was engaged in four off-shore jobs of salvaging and towing for private interests during the fiscal year 1958 and was used for servicing outlying aids to navigation off the Pacific coast of Panama and in the Caribbean.

Accidents to shipping

During fiscal year 1958 the Board of Local Inspectors was called upon to investigate 32 marine accidents in Canal Zone waters and to fix the blame and responsibility for same. Of these 32 accidents, 19 occurred during transit, the balance occurred in the terminal ports. This compares with 20 investigations in the previous fiscal year. The Panama Canal Company was found responsible for damages incurred in 17 accidents, with joint responsibility fixed in 3. A reserve in the amount of \$459,555 has been set up to cover claims which might arise as a result of the Company's liability. This compares with five accidents of Company responsibility and a reserve of \$22,000 in 1957. The remaining 15 accidents were determined to have been caused by fault of the vessel or other causes for which the Company assumed no responsibility.

The most serious marine accident which occurred during the year was the collision on October 10, 1957, in San Pablo Reach between the MS *Rangitane* southbound, and the SS *Hawaiian Tourist*, northbound. Responsibility for the accident was placed on the Panama Canal Company. Estimated liability of the Company for damage to both vessels was \$250,000.

There were 558 transits per accident during 1958 as compared to 534 in 1957, and 262 in 1956.

Admeasurement and boarding party operations

A total of 602 new oceangoing-type vessels were measured and, in addition, 206 ships with structural changes were remeasured. This compares with 514 new ships, 235 with structural changes in the previous year.

The function of the boarding party consists of all phases of routine boarding, which includes admeasurement of vessels for tolls assessment; inspection to insure compliance with customs, immigration, quarantine, and navigation regulations; and the performance of Deputy Shipping Commissioner duties for seamen aboard the U.S.-flag vessels. There were 10,750 ships boarded and inspected during the year as compared with 9,392 in 1957 and 8,523 in fiscal year 1956, respectively.

Aids to navigation

On October 6, 1957, the former Aids to Navigation Section of the Marine Bureau was transferred to and became a unit of the Dredging Division, Engineering and Construction Bureau. The complete integration of the two units was effected by October 31, 1957. Consolidation of these activities will result in a net reduction of operating expenses in the amount of \$143,200 in fiscal year 1959.

As of June 30, 1958, there were 870 navigational aids maintained by the Dredging Division in the canal proper and the approaches thereto, the terminal harbors, and the adjacent coastal areas. Classified according to the character of the illuminant used, these were as

follows: acetylene gas operated, 123; electrically operated, 370; and unlighted, 377. Outlying navigational aids were visited for the purpose of inspection and servicing, and all aids were maintained in good operating condition throughout the year.

Signal stations

Effective December 1, 1957, the U.S. Navy transferred the Flamenco Island Signal Station, located in the outer Pacific harbor waters, to the Panama Canal Company for operation and maintenance. Curtailment of funds and personnel in the Department of the Navy made necessary this change in organizational management.

LOCKS OPERATION

In traversing the lock-type canal, ships are raised in three steps to a fresh-water lake 85 feet above sea level. The Locks Division of the Marine Bureau is primarily concerned with the operation and maintenance of the three sets of locks, their related installations and facilities, including the periodic overhaul of underwater parts.

Gatun Locks near the Atlantic entrance to the Canal forms one continuous flight of three steps which raise and lower the ships 85 feet above sea level. The three flights at the Pacific entrance are divided between Pedro Miguel Locks with one flight and Miraflores Locks with two flights. Each of the twin chambers in each flight of locks has a length of 1,000 feet, a width of 110 feet, and a depth of 70 feet. Since the flights are in duplicate, ships may pass in opposite directions simultaneously.

The duration of a lockage depends on many factors, including the size of the ship, its handling characteristics, and whether the vessel is locked separately or in tandem. This latter procedure is used to save overall time and water. The normal lockage intervals are 40, 60, and 80 minutes at Pedro Miguel, Miraflores, and Gatun Locks, respectively.

The number of large vessels passing through the locks in fiscal year 1958 was greater than ever before. Ten-locomotive lockages increased by 13.5 percent over the previous year; eight-locomotive lockages increased 6.1 percent. Total lockages showed an increase of approximately 6 percent over the previous fiscal year.

Lockages—vessels handled

The number of lockages and vessels handled (including Panama Canal equipment) is shown in the following tables for the fiscal years 1958 and 1957:

	<i>Fiscal year</i>	
	1958	1957
Gatun Locks:		
Number of lockages.....	8,548	8,053
Number of ships.....	10,882	10,348
Pedro Miguel Locks:		
Number of lockages.....	8,815	8,260
Number of ships.....	11,713	11,198
Miraflores Locks:		
Number of lockages.....	8,655	8,244
Number of ships.....	11,358	11,105



Tanker SS "Gulfking" in Transit at Pedro Miguel Locks.



Repairing Culvert Failure in East Chamber, Pedro Miguel Locks.

Locks overhaul

The 5-year overhaul of the Pacific locks was accomplished, except for rising stem valves in the Pedro Miguel center wall, which will be completed in July 1958. Preparatory work was begun early in fiscal year 1958, and overhaul work proper began at Miraflores on January 4, 1958, and remained in progress during the balance of the fiscal year.

All underwater parts were inspected, repaired, cleaned, and painted as required. Ten miter gate leaves were unhinged for replacement of bearings and bearing plates. Eighteen old rising stem valves at Miraflores were replaced with new valves. Work in the Miraflores center culvert was done with both chambers in service and the culvert isolated by use of lateral culvert plugs.

On June 7, the unwatered east chamber of the Pedro Miguel Locks revealed a failure of one of the culverts and the adjacent floor areas on either side amounting to a total of about 1,000 square yards of concrete. It was determined that the upheaval of the concrete had occurred during the first filling of the chamber following the overhaul. Cleanup and repair work was completed on June 24, and consisted of repouring the top half of the lateral culvert that was ruptured; repairing and sealing leaks in several other lateral culverts which showed signs of weakness; and the pouring of about 1,000 square yards of new floor slab.

WATER SUPPLY

The supply of water necessary for the operation of the Panama Canal in transiting of ships, the generation of electric power, and for municipal use is derived from several tributary streams that flow into Madden and Gatun Lakes which serve as storage and flood control reservoirs of a drainage basin comprising 1,289 square miles. All inflow from Madden Lake, whether drawn for hydroelectric power or spilled for lake control, flows into Gatun Lake and together with the runoff from the area below Madden Dam is used for lockages, power generation, and municipal purposes, or may be spilled to control the operating level of Gatun Lake.

Total runoff from Gatun and Madden Lake drainage basin for the fiscal year 1958 was 19 percent below normal and amounted to 3,870,552 acre-feet. Of this total, 41 percent was derived from the basin above Madden Dam.

Runoff for the period, January-April, from the Gatun Lake Basin amounted to 616,621 acre-feet, which was 31 percent above the 45-year average. From the area above Madden Dam, which constitutes the greatest source of hydroelectric power, the total runoff amounted to 354,775 acre-feet, which was 28 percent above the 45-year average for that area.

After deduction of evaporation losses from both lakes of 488,129 acre-feet, the remaining net yield or runoff amounted to 3,382,323, which was combined with 313,934 acre-feet from lake storage and used to furnish 1,462,925 acre-feet for Gatun Lake lockages (using 169 acre-feet per lockage of which there was an average of 23.8 per day). Out of this net yield also, 1,459,344 acre-feet were used to generate 84,025,200 kilowatt-hours at Gatun hydroelectric plant. In addition, leakage and miscellaneous losses of 19,651 acre-feet were

sustained during the period and of the remaining net yield municipal requirements took 35,652 acre-feet, gain in storage of 313,934 acre-feet, and the spilling of 90,817 acre-feet at Gatun spillway for lake regulation during the rainy season. Madden hydroelectric plant used 1,166,528 acre-feet to generate 125,249,100 kilowatt-hours of electricity.

For further details on water supply and expenditures, see table 27, chapter V, page 110.

MAINTENANCE OF CANAL CHANNEL

The Dredging Division is charged with the maintenance of the canal channels from the Pacific entrance at Balboa to the Cristobal breakwater in the Atlantic. This division is also responsible for the operation and maintenance of all other navigable channels, harbors, and anchorages; the extermination of impedimental plants in the canal and its tributaries; and the maintenance of the Atlantic breakwater.

This maintenance of the canal channel, its terminal harbors, the adjacent navigable waterways of the Panama Canal, and special improvement projects was accomplished during the year with a 28-inch suction dredge, a 13½-cubic-yard dipper dredge, and a 10-inch suction dredge which was placed in operation in November 1957 to be used in drainage correction work in the Telfers Island area, in lieu of higher cost excavation by land machines.

Dredging operations are divided into three major areas; the Atlantic, a Central, and a Pacific district. The canal channel is maintained at the following predetermined controlling depths: For the Atlantic district, from deep water in the Atlantic to Gatun Locks, is 42 feet below mean low water; that for the Central district, from Gatun Locks to Pedro Miguel Locks, 42 feet below minimum lake level of 82 feet; and that for the Pacific district, from Pedro Miguel Locks to Miraflores Locks, 42 feet below Miraflores Lake elevation of 53 feet; from Miraflores Locks to deep water in the Pacific, 42.4 feet below mean low water springs.

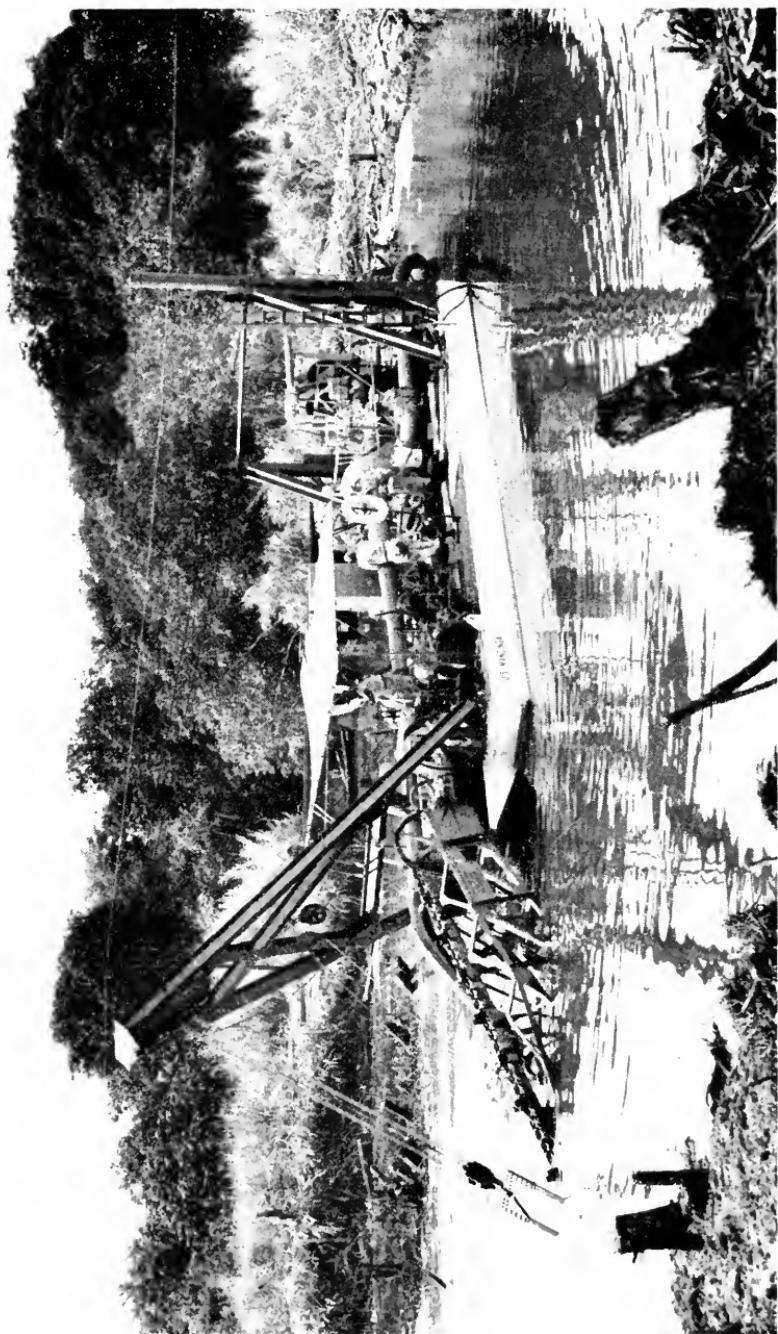
A total of 5,156,700 cubic yards of earth and rock was removed from the harbors and waterways in 1958, an increase of 2.9 percent over the 5,010,600 cubic yards in the previous fiscal year.

Slide incidence in Gaillard Cut was again below normal, with only 42,300 cubic yards of material being removed, bringing the total material removal since June 30, 1913, to 52,929,550 cubic yards. The Culebra Slide West continues to be the most active, and numerous small bank breaks occurred but with movements of minor consequence.

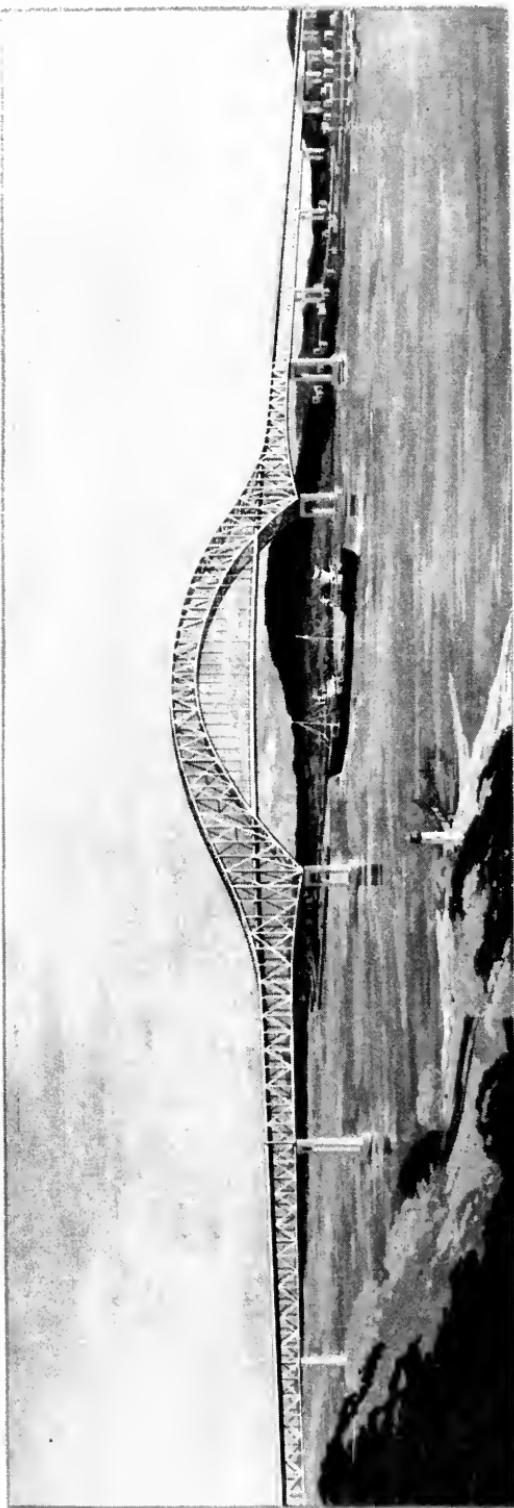
A summary of dredging operations for the fiscal year 1958 will be found in table 28, chapter V, page 110.

REPLACEMENT OF LOCKS TOWING LOCOMOTIVES

In January 1958 the two test locomotives which had arrived in December 1957, and which were placed on the north center wall of Gatun Locks, were demonstrated to the Board of Directors of the Company and to the Governor of the Canal Zone. The machines proved to be nonoperative and were not acceptable. Further tests were suspended pending corrective measures to bring them up to measurable standards of the specifications. Corrective work was



Suction Dredge "Mandinga" Placed in Operation November 1957.



Architectural Rendering of Bridge to Span Canal Channel at Pacific Entrance.

begun in May. Preliminary tests were again performed in June and indicated that the major repairs were satisfactory although the machines had not yet been able to demonstrate their ability to handle ships. A project operating schedule, prepared on the basis that no major difficulty or serious delaying accident will occur, was scheduled to begin on July 1, 1958. The towing devices are to be tested through transits with two barges lashed together, small vessels, and oceangoing ships.

CANAL IMPROVEMENT PROGRAM

The canal improvement, short range program, developed in 1957 was approved during 1958 for accomplishment. At year's end, dry excavation had been completed and blasting was in progress on the widening of Bend 1868 (Paraiso Curve). A contract was in progress for lighting of the locks and Gaillard Cut on an experimental basis only; preliminary geological data was being obtained with preparation of plans and specifications under way on widening the Paraiso-Cucaracha Reach; and the projects of widening Bend 1660 and the Paraiso Mooring Station have been deferred until 1961.

In the Canal Improvement, Long-Range, Special Studies Program, general engineering studies, editorship and coordination of a report are nearing completion under the direction of the Vice President who is Chairman of the Working Committee for the Ad Hoc Committee. It includes updating and revision of 1947 cost estimates for Third Lock and Sea Level canals, a study of the vulnerability of various types of canals in this location, and an analysis of new construction methods and equipment as related to new canal plants.

MARINE TRAFFIC CONTROL

During the fiscal year the Panama Canal Company contracted with an engineering firm for a study of the present methods and equipment for marine traffic control in the Panama Canal and for recommendations for improvements of a marine traffic control system.

A preliminary oral report was presented to Company representatives and the final report was scheduled for submission to the Company early in fiscal year 1959. This report recommended the installation of an extensive electronic marine traffic control system. The proposed system would be an integrated, or coordinated method of continuously providing and utilizing more complete, accurate, and up-to-the-moment information for scheduling and controlling the movement of vessels in the canal.

CLOSING OF GAS MANUFACTURING FACILITY

For the past several years the possibility of closing the Industrial Division's gas manufacturing facility has been considered. At the close of the fiscal period a plan had been approved for its closing, and negotiations for a contract with a firm in the Republic of Panama to furnish oxygen, hydrogen, and acetylene were underway.

It was decided that the Storehouse Branch will handle the transportation of the gas cylinders to and from the plant in Panama and will have the responsibility for storing, issuing, and receiving cylinders

and the maintenance and repair of cylinders. No sales will be made to any military or commercial unit in the Canal Zone.

The Industrial Division gas plant will be converted to 60-cycle and mothballed. The plant will be reactivated should the local source of subject gases fail at any time in the future to meet contractual obligations for supply of the gases to the Company. (On July 9, 1958, a contract was signed between the Panama Canal Company and the Panamanian supplier, to become effective August 1, 1958.)

The new cost of the three gases to the consuming agency will be approximately the same as presently charged by the Industrial Division. Savings will accrue through the following items: Plant additions and replacements, rising rate of U.S. rate salaries coupled with effects of the single wage plan in the Canal Zone, community services to Panama Canal Company employees; and the intangible cost of maintaining an extremely hazardous gas manufacturing facility in a heavily populated industrial area and in the vicinity of a heavily populated residential area.

FERRY SERVICE

The Thatcher Ferry service operates across the canal near the Pacific entrance of the canal. It is operated as a public service and no charge is made for its use. Service is maintained by retaining three diesel ferryboats on a daily schedule, with two ferries being in simultaneous service. A third ferryboat is kept in reserve to relieve the two regular ferries during periods of overhaul and to carry tourists and special parties in the canal as required. Statistical data on the ferry service for the past 2 fiscal years are given below:

	<i>Fiscal year</i>	
	1958	1957
Single trips made-----	22,945	27,144
Total vehicles carried-----	512,878	606,648
Total passengers carried-----	3,663,587	4,281,474

During the year some 7,716 tourists, special parties, and 3,568 schoolchildren were passengers on ferry trips through Gaillard Cut, partial canal transits, and excursions on Gatun Lake.

Chapter III

SUPPORTING OPERATIONS

It is doubtful if there is any other Federal organization in the world that embraces the variety of distinct, but closely interrelated activities that are found in the Canal Zone. In support of the maintenance and operation of the waterway and incident to the civil government of the Canal Zone, the Company conducts many auxiliary operations that are essential to the accomplishment of its basic mission. These include rail, ocean, and highway transportation; public-utility-type services; the operation of retail stores and housing for employees; and a wide variety of engineering, supply, and service functions. These services are also made available to other Federal agencies in the Canal Zone and, to a limited extent, to the Republic of Panama.

EMPLOYEE SERVICES

Supply and Community Service Bureau

Under the program of regrouping facilities, the integration of the Service Center, Commissary, and Storehouse Divisions was formally effected July 1, 1957. The Supply Division has two branches—the Storehouse Branch and the Sales and Service Branch, which comprises all activities formerly operated by the Commissary and Service Center Divisions. Its principal objectives and responsibilities consist of: procurement of supplies and materials, storage and sales thereof; scrap processing; and operation of theaters, restaurants, and bowling alleys.

The Community Services Division has the responsibility of housing management and attendant operations; care of public buildings and grounds; operations pertaining to collection of garbage and trash; street-cleaning facilities and cemetery maintenance.

In addition, in November 1957, the responsibility for direction of the Procurement Division was transferred from the New York Office to the Director of this Bureau.

SUPPLY DIVISION

Sales and Service Branch

Service center operations

The service centers provide certain essential sales and recreational facilities for the employees of the Company/Government organization, their dependents and guests, as well as others authorized or entitled to receive Canal Zone privileges. These facilities include cafeterias, soda fountains, guest accommodations; recreational activities such as theaters, bowling alleys, and merchandise sections. In addition, rental space is conveniently furnished for the use of the various licensee shops, which include barber, beauty, shoe, tailor, and dress-making establishments, public libraries, and union organizations.

Implementation of the 1955 treaty commitments and deactivation of two communities resulted in the closing of several retail units and the initiation of several new ones. Revenues increased slightly, a total of \$23,285 in gross income being shown over the 1957 fiscal figure.

Retail stores, warehousing, manufacturing, and allied operations

The retail stores, warehouses, manufacturing plants, and related operations provide food supplies, clothing, general household, and other essentials to U.S.-citizen employees and their families in the Canal Zone and in the Republic of Panama, to noncitizen employees residing in the Canal Zone, and the members of the Armed Forces. In addition to retail stores in the Canal Zone, the operation of gasoline service stations, warehouse facilities, a bakery, coffee-roasting facilities a dairy, and a laundry were maintained throughout the year.

Retail stores and related operations

During fiscal year 1958, an intensified program of realignment of operations consistent with the policy of offering merchandise and services at the lowest possible prices to support good business practices was continued. Loss in retail store sales as a result of implementation of treaty commitments was slightly less than anticipated and inventories were increased beyond originally planned levels. A drop of 22 percent from the previous year was sustained in retail sales, services, and issues. Revenues for fiscal year 1958 were some \$4,920,138 under fiscal year 1957 volume.

Storehouse Branch

The organizational units of this branch include administrative, stock management, warehousing, scrap, and salvage operations; excess disposal; and office furniture and equipment pools.

During the year excess stocks held in this branch of the division were brought down from a value of \$700,712 to \$57,673.

A continued program of regrouping facilities and rewarehousing stocks so as to promote efficiency in the warehousing activity and to reduce operating and depreciation expenses to a minimum was vigorously pursued throughout the fiscal period.

Scrap operations were curtailed this fiscal year due to the business recession in the United States which caused a drop in the market price of scrap. Improved scrap-processing operations were initiated that resulted in an appreciable decrease in operating costs.

Methods of operation in office equipment and furniture pools were studied throughout the fiscal period, resulting in improvements in several areas. Unserviceable pool items retired reached a total of 767 in comparison with 1,061 in 1957; acquisitions of new equipment for the fiscal year period totaled 906 in comparison with 352 for fiscal year 1957.

PROCUREMENT DIVISION

This division, comprised of three commodity branches and one administrative branch, is charged with the responsibility of providing procurement services to the Supply and Community Service Bureau. The division is also responsible for the forwarding, expediting, and correlating of shipments to the isthmus in compliance with required

delivery dates. Food items, supplies, materials, and equipment are purchased for use of the Company in the Canal Zone, in its New York operations, or for resale to its employees. This division continued its liaison service between the Engineering and Construction Bureau and States contractors on all open contracts.

During the fiscal year 1958, the division made 22,752 awards for purchases valued at \$14,183,125, in comparison with 20,003 awards for purchases valued at \$14,771,658 in fiscal year period 1957.

Although the dollar value of the purchasing workload decreased in 1958, line items handled and vendors solicited increased by 10 percent and 19 percent, respectively, as a result of expansion of merchandise lines and the purchasing of smaller quantities more frequently in order to hold inventories as low as possible. By taking advantage of the various economic opportunities offered in procurement of goods throughout the year, a total of \$149,296 in savings was effected by the division.

COMMUNITY SERVICES DIVISION

Housing Branch

The Panama Canal Company operates living quarters for all U.S.-citizen employees and, to a limited extent, for non-U.S.-citizen employees.

No new housing construction was begun during the year. However, effective January 14, 1958, sixty-nine 4-family apartment buildings, comprising 124 3-bedroom apartments and 152 2-bedroom apartments, and four 1-family buildings located in the Coco Solo area were added as U.S.-citizen housing when the Department of the Navy released them to the Company. The demolition program was accelerated during the year to accomplish the evacuation of a total of 16 U.S.-citizen quarters buildings and apartments, and a total of 521 non-U.S.-citizen quarters buildings, apartments, and bachelor rooms.

A reduced operating margin this fiscal year over last year reflects increased maintenance requirements on all residential housing and is attributed mainly to increases in Canal Zone rates and U.S. Wage Board labor rates.

Revenues for U.S.-citizen housing were slightly under those for fiscal period 1957. The financial results of the non-U.S.-citizen housing show a substantial improvement over fiscal year 1957 as a result of a rental increase made effective in January 1957. The operating deficit was reduced to \$17,270.

U.S.-citizen quarters

As of June 30, 1958, there were 2,460 family units in operation for citizen employees and their families. These excluded 8 apartments held in a standby status and 313 substandard units that were in the process of demolition or transfer to the Republic of Panama. With the exception of three occupants, the complete evacuation of New Cristobal has been accomplished.

Non-U.S.-citizen quarters

As of June 30, 1958, there were 1,854 family units in operation for non-U.S.-citizen personnel and their families. In addition, 88 family apartments were in the process of demolition or transfer. During late calendar year 1957, seven 12-family buildings at Pedro Miguel were

reactivated for use as the final demolition program of La Boca was accomplished. There were 228 fewer non-U.S.-citizen families occupying quarters on June 30, 1958, than on June 30, 1957.

Other activities

The Housing Branch of the Community Services Division is also responsible for the administration, care, and maintenance of the Company/Government buildings. Care of grounds, collection and disposal of trash and garbage; cleaning of streets within townsites in the Canal Zone; landscape activities; and operation and maintenance of Summit Park and the Canal Zone cemeteries are administered by the Grounds Maintenance Branch.

There was no change of consequence in the workload of the Company and Government building subprogram. The increase in depreciation expense includes the reinstatement of plant previously offset by economic valuation allowance, and the provision of special reserves to offset the net book value of 16 Company buildings licensed to various religious, civic, welfare, and commercial groups.

Canal Zone rate wage increases and upwardly revised truck rental rates, effective July 1, 1957, account for the two major areas of increased operating expenses of the care of grounds. The addition of 200 acres of housing areas in Coco Solo and Pedro Miguel added to the workload of both branches; however, the phaseout of the towns of La Boca and New Cristobal offset this increase.

Added depreciation costs on new replacement machines and Canal Zone rate wage increases account for the increased operating expenses of the Garbage Collection and Disposal Unit. The closing margin approximates \$29,333 as compared to the budgeted figure of \$17,300. This difference is due to the failure of anticipated reductions in the volume of service furnished to the military.

The street cleaning, Summit Park, and cemeteries operations all continued at the approximate levels of the 1957 operating figures.

TRANSPORTATION AND UTILITY SERVICES

Railroad operations

The Panama Railroad comprises 48 miles of main-line single track across the isthmus between the terminal cities of Panama and Colon. In addition, it furnishes industrial switching service to the most important Company/Government and Armed Forces warehouses and installations, as well as to some industrial facilities in the Republic of Panama. It also maintains appurtenant freight and passenger stations, railroad yards, and locomotive and car repair shops. It serves all Federal Government agencies on the isthmus and is a common carrier serving commercial interests in the Canal Zone and the Republic of Panama.

Passenger and freight workloads of the division showed increases of 33½ percent and 18 percent, respectively, during the fiscal year over the previous year's figures. The increase in passengers carried produced a 22 percent increase in income, while the increase in freight tons hauled accounted for a 15 percent increase in income. Due to an overall workload increase with the exception of a reduced workload on the docks and piers which produced a reduction in switching

locomotive service income, and the reduction in force, the operating deficit was reduced by 51 percent.

Comparative workload and income statistics are shown in the table below:

	Fiscal year	
	1958	1957
Passengers carried-----	540, 641	405, 406
Revenue freight tons carried-----	129, 121	109, 720
Passenger service income-----	\$433, 165	\$353, 743
Freight service income-----	\$731, 953	\$637, 689
Switching and locomotive service income-----	\$64, 104	\$75, 933
Net operating deficit-----	\$124, 830	\$252, 071

Motor transportation

The Motor Transportation Division operates two fully equipped repair shops, one at each canal terminal, and small repair facilities located in the Cristobal and Balboa pier areas; motor pools from three central garages; and a tire retreading plant at the Ancon garage. The division also maintains the motor vehicle fleet and various other types of power-driven equipment used by the Panama Canal Company/Canal Zone Government for construction, materials handling, fire-fighting, grounds maintenance, and related motorized equipment owned by various units of the Company/Government. In addition, it also provides miscellaneous repair services to other U.S. Government agencies, employees, and others authorized to utilize such services. It supervises the operation of public bus transportation systems operating on both sides of the isthmus under franchise or concession, and performs annual inspections of commercial and privately owned motor vehicles as required by Canal Zone traffic regulations.

Various Company/Government projects and other factors contributed to the overall increased demand for motor transportation services which resulted in a workload that was greater than that anticipated and budgeted for the year.

The decrease shown in repair shop services furnished to units of the Company/Government and others eligible to use such services is due primarily to reduced credits from setting up only 52 new vehicles in the year as compared to 123 new vehicles in the previous fiscal year. Approximately 42 percent of the repair shops' workload was utilized in repair and maintenance of the division's motor fleet. Significant workload indices for the fiscal year as compared with the previous year are given below (reduction in transisthmian hauling is result of Company/Government units using railroad to fullest practical extent):

	Fiscal year	
	1958	1957
Vehicles in service-----	535	535
Vehicle mileage-----	5, 757, 000	5, 488, 000
Transisthmian freight hauled (tons)-----	14, 662	19, 791
Number of line handlers carried (transisthmian)-----	53, 682	65, 175
Repair shop services furnished others-----	\$394, 872	\$419, 048
Operating margin (or deficit)-----	\$28, 318	(\$2, 513)

Steamship operations

The Panama Canal Company operates the Panama Line which provides a regular freight and passenger service between New York and the Canal Zone, via Port-au-Prince, Haiti. The steamship line is an important adjunct to the operation and maintenance of the Panama

Canal, furnishing ocean transportation for the large quantity of goods required by the Panama Canal Company/Canal Zone Government, and supplying passenger transportation for employees and their families between the Canal Zone and the United States. Commercial passengers and freight are accepted on a space-available basis.

This is the first year in which the two remaining vessels, the SS *Ancon* and the SS *Cristobal*, operated under the new schedule which provided for 41 round-trip voyages annually. During the last 6 months of the fiscal year the business recession, affecting shipping throughout the world, was experienced also by the Panama Line. In spite of an initial 6 months' profit, the operating loss of the line at year's end rose to \$111,041, primarily because of lower freight traffic. In addition, and contributing also to this loss, was the political unrest in Haiti, and a planned rehabilitation program initiated during the year to improve the mechanical and structural condition as well as the appearance of the two vessels as rapidly as the financial situation allows.

Shown below is the statistical comparison of the fiscal years 1958 and 1957:

Workload	Fiscal year	
	1958	1957
Number of completed voyages-----	41	45
Tons of freight carried-----	167,951	199,915
Average number of tons per voyage-----	4,096	4,442
Number of passengers carried-----	9,528	10,739
Average number of passengers per voyage-----	232	238
Operating margin (or deficit)-----	(\$111,041)	\$64,724

Electrical power system

The Panama Canal Company provides all electric power used in the Canal Zone. It operates and maintains hydroelectric and diesel generating stations, substations, transmission lines, and appurtenances. Two hydroelectric generating plants, one at Gatun and the other at Madden Dam, provide the normal power needs of the Canal Zone. Three major diesel standby plants are maintained to supplement the hydroelectric plants when water supply is inadequate.

The combined generated output of the power system for fiscal year 1958 was 250,177,080 kilowatt-hours, a decrease of 4,798,020 kilowatt-hours, or 18.8 percent less than 1957. A total of 222,640,477 was delivered to customers as compared with 229,108,926 for the preceding year. Due to the prolonged dry season, diesel generation for water conservation was the heaviest on record. The total diesel power generated, 41,004,380 kilowatt-hours for the year, was 89.2 percent greater than the previous heavy record in 1949.

Further particulars on electric power generated will be found in table 29, chapter V, page 111.

Communications system

The communications system consists of two main exchanges located in Balboa and Cristobal, with small exchanges at Pedro Miguel, Gamboa, Gatun, and Coco Solo, with their respective distribution systems connected by two transisthmian trunk cables. The system is independent of, but interconnected with, the Army and Navy systems in the Zone, and with the systems in the cities of Panama and Colon.

At the end of the fiscal year 1958, there were 7,670 telephones in service, as compared with 7,543 telephones in service at the end of the preceding fiscal year, an increase of 127.

Water system

The Water Branch continued to supply all the filtered water requirements of the Canal Zone, including that required for shipping, Armed Forces installations, the cities of Colon and Panama, and suburban Panama in the Republic of Panama.

The system consists of two principal units, one serving the Pacific side of the isthmus, and the other the Atlantic area. The Pacific unit takes its water supply from the Chagres River near Gamboa, from which point the raw water is pumped to a filtration and treatment plant at Miraflores. The Atlantic side unit receives its water from Gatun Lake, from which water flows by gravity to a filtration and treatment plant at Mount Hope. Each unit has its own pumping stations, reservoirs, mains, and distribution piping. Two laboratories are maintained as adjuncts of the water system to perform the necessary tests to assure the production and distribution of safe, potable water. In addition to work performed in connection with water purification, the laboratories render various chemical, physical, and bacteriological tests for other Company/Government units and outside agencies. They also handle the chemical inspections for explosive and asphyxiating gases on burning or damaged ships.

The total annual production of water for this fiscal period is 1.1 percent lower than in fiscal year 1957. The increased use by Panama and suburban Panama was more than offset by the reduced use by the Armed Forces and a reduction in water consumption by the city of Colon.

The table below shows for the fiscal year 1958 and 1957 the consumption of filtered water for municipal purposes and for sales to vessels:

	Fiscal year 1958 (Thousands of cubic feet)	Fiscal year 1957 (Thousands of cubic feet)
Canal Zone (including Armed Forces)-----	562, 997	605, 030
City of Panama (including suburbs)-----	737, 838	707, 464
City of Colon-----	175, 014	179, 551
Sales to vessels-----	22, 054	23, 345
 Total-----	 1, 497, 903	 1, 515, 390

Printing plant

The printing plant performs the general printing and bookbinding services that are required by the Panama Canal Company/Canal Zone Government and other U.S. Government agencies operating on the isthmus. Authorized under regulations of the Joint Congressional Committee on Printing, it supplies letterpress and offset printing, provides addressograph and bookbinding services, and other miscellaneous printing services.

While the workload of the printing plant decreased slightly (1 percent) in the number of print impressions registered, the number of production units increased by 1,812,846 in fiscal year 1958 in comparison with last fiscal year, an overall gain of 20 percent, in plant production. During the year, five positions were abolished in the plant as a result of improved operating procedures and methods. Total revenues and credits for the fiscal year amounted to \$351,683,

with total expenditures of \$351,806, resulting in a net operating loss of \$123.00.

Vessel repairs

The Industrial Division of the Marine Bureau provides repair facilities for commercial and Government shipping in the Canal Zone. Its operations are centralized in Mount Hope at the Atlantic terminal of the canal, and consist of a shipyard, drydock, shops, and related operations. A large drydock at Balboa, on the Pacific side, is maintained in a state of readiness for emergency use only as are other repair facilities.

A total of 1,063 vessels, 65 feet or over, were repaired during the year, accounting for 1,763 ship-days. There were 43 vessels of this class drydocked during the year.

Normally, the Company's own floating equipment provides the largest single source of work for the division through its routine drydocking and overhaul. During fiscal year 1958 Company sources provided the principal workload and backlog throughout the entire year, and accounted for 49 percent of total revenues earned and 61 percent of the productive force. Actual workload in the division declined during the latter part of the year mainly because of cancellation of scheduled Navy work due to redeployment of these locally based naval craft to other areas.

Harbor terminals operation

The Company's terminal facilities consist of wharves and piers, with about 3 miles of berthing space, and other appurtenances necessary for handling, transferring, and stevedoring of cargo landed at the Atlantic and Pacific terminals of the canal either for ultimate destination in the Canal Zone or the Republic of Panama, or for transshipment to points beyond the isthmus. Facilities also include a tank farm at each terminal for storage of petroleum products, fuel handling plants for the transfer of petroleum products to storage facilities and for the delivery of bunker fuel to vessels at terminal piers.

Cargoes handled include imports for the Canal Zone and the Republic of Panama, outgoing isthmian cargo, and the transshipment of cargoes to various world ports. A total tonnage decline of 11 percent during 1958 from the previous year's total is shown in the combined cargo stevedored between ships and shore at the two canal terminals, transferred between ships, or otherwise moved over the piers. Among the primary factors accounting for this loss were the direct shipments of coffee and raw cotton from west coast Central American ports to Europe and Japan, the curtailment of Armed Forces shipments, continued reduction in the Company's commissary sales, and decreases in scrap and banana exports. Improved cargo-handling techniques were introduced during the year to increase productivity on the piers.

In compliance with the 1955 treaty, pier No. 3, located in Colon Harbor, was transferred to the Republic of Panama on November 7, 1957. This pier is a small pier, 160 feet long and 60 feet wide, located in the port of Colon adjacent to Cristobal Harbor. It is used by small vessels in coastal trade with Panama. While under the jurisdiction of the Panama Canal Company, the use of this pier was restricted to vessels whose length did not exceed 125 feet.

Comparative combined cargo movements in tons of cargo stevedored and financial results thereof are as follows:

	<i>Fiscal year</i>	
	1958	1957
Combined cargo movements between ships and piers--	940, 527	1, 050, 165
On the pier-----	892, 560	999, 440
 Total (revenue tons)-----	 1, 833, 087	 2, 049, 605
 Income-----	 \$4, 191, 109	 \$4, 528, 316
Expenses-----	\$3, 823, 724	\$3, 737, 436
 Net income-----	 \$367, 385	 \$790, 880

The marine bunkering operations which is the other prime function of the Terminals Division is concerned primarily with the pumping and inward handling of petroleum products from tankers to storage tanks, both Company and privately owned, and the outward handling of such products from storage tanks to vessels or to tank farm loading platforms for local consumption.

The increase in receipts in view of an overall decrease in the workload was in a large measure due to the discontinuation of the practice of loaning products among local oil companies. The decrease in overall workload is due primarily to reduced bunkers to vessels, reflecting in part the depressed state of shipping, and to the return to regular trade routes and bunkering at other ports of shipping that was diverted to the Panama Canal during the Suez Canal closure.

The following comparative workload data is furnished for fiscal years 1958 and 1957:

	<i>Fiscal year</i>	
<i>Workload</i>	1958	1957
Combined receipts (Cristobal and Balboa)-----	8, 686, 386	8, 589, 190
Combined issues (Cristobal and Balboa)-----	7, 724, 516	8, 359, 083
 Total barrels of products moved-----	 16, 410, 902	 16, 948, 273
 Tankers discharging (Cristobal and Balboa)-----	 127	 120
Vessels bunkering-----	2, 823	3, 061

PRINCIPAL ENGINEERING AND CONSTRUCTION PROJECTS

Bridge, Balboa, C.Z.

Construction of a high-level bridge spanning the canal channel on the Pacific side of the isthmus is scheduled to begin during the coming fiscal year. The completion of this bridge will fulfill treaty commitments made between the United States of America and the Republic of Panama.

During November 1957, a contract was awarded to an engineering company to make preliminary studies and estimates. A five-man Board of Consultants was appointed for the purpose of evaluating designs and to provide general engineering consulting services. This board consists of: Ralph A. Tudor, Panama Canal Company Board member; Roland P. Davis, Dean Emeritus of the University of West Virginia; F. C. Turner, Deputy Commissioner and Chief Engineer of the Bureau of Public Roads; Edward B. Burwell, Jr., retired Chief Geologist of the Office of the Chief of Engineers; and Aymar Embury II, bridge architect of New York.

On April 10, 1958, the preliminary engineering report was presented

to the Panama Canal Company and the Board of Consultants. A three-span, arch-truss-type bridge was selected as the most feasible from the standpoint of design, cost, and ease of construction, and a contract for the full design of the bridge was awarded. A considerable amount of preliminary work remains to be done, much of which will hinge on the selection of the alignment of the bridge and its approaches which were still under study at the close of the fiscal year.

This bridge will permit uninterrupted highway traffic movement across the canal. Its overall length will be slightly over 2 miles from the ends of the highway approaches on the east and west sides. The main span crossing the canal will be 1,128 feet long and will have a minimum clearance of 201 feet above the canal at mean high tide. The bridge will connect with Thatcher Highway on the west, while the east side approach will provide vehicular outlets directly to the Canal Zone and Panama City street systems at the Canal Zone-Republic of Panama boundary limits.

Under a schedule for the bridge project submitted by the engineering firm, preparation of the design plans and specifications can begin in July 1958. It is anticipated that a contract for the substructure work will be let by July 1, 1959, and the contract for the superstructure shortly thereafter. Contracts for the approaches are scheduled for award in December 1958 and February 1959. The project is scheduled for completion by December of 1962.

Sixty-cycle power conversion program

Eighteen major contracts were in progress during fiscal year 1958. Included in these were five closely related replacement projects which are being coordinated with the power conversion project. The five related project contracts total \$3,477,400 and the 13 conversion project contracts total \$7,030,800. The remaining major projects in the power conversion program are: System voltage correction, \$381,500; conversion of unit No. 6, Gatun hydroelectric station, \$230,000. The contract for the conversion of Gatun, Pedro Miguel, and Miraflores Locks amounts to \$2,005,000. This contract is included in the total for the five related contracts.

Conversion of all 25-cycle consumer equipment in the Atlantic area to 60-cycle operation was virtually completed. In the Central area, consisting of Gamboa, Santa Cruz, Summit, and Paraíso, consumer equipment was completed except for the Gamboa pump station and substation transformers. Conversion of the Pacific area commenced and proceeded energetically on or ahead of schedule.

Again the principal impediment to fieldwork was the constantly recurring delay in receipt of materials ordered from U.S. manufacturers or suppliers.

Phase I of increased dependable capacity of the locks

A 60-foot extension to the south end of the overhaul shed at Miraflores Locks was started and will be completed in fiscal year 1959. It is required for storage of additional overhaul equipment involved in Phase I.

All openings from side and center culvert laterals in the chamber floors at Pedro Miguel and Miraflores Locks were reshaped to fit

the lateral culvert plugs. Extensive cracks and open construction joints in culvert laterals were found at Pedro Miguel. All those between floor slab and culvert riser were closed with cement mortar. There remain to be sealed a great many open construction joints and cracks in laterals and risers in both lanes of Pedro Miguel Locks. This must be done to seal off leakage to a point where use of the lateral culvert plugs will be practical.

A sluice gate was installed in the center culvert drain at Pedro Miguel to facilitate its control. Two elevator shafts, one in each level, were constructed at Miraflores, and one shaft at Pedro Miguel Locks for direct access to the center culvert. A well for the culvert dewatering pump was constructed at the south end of the center culvert at Miraflores and a similar well was constructed at the south end of Pedro Miguel.

Miscellaneous and other projects

Other major engineering and construction projects initiated or concluded during the year included the remodeling of the Governor's residence; construction of executive quarters for the Lieutenant Governor; modernization of the Administration Building and installation of air conditioning, Balboa Heights, and modernization of the Terminals Building in Cristobal; remodeling of the former Ancon Commissary to provide office space; alterations to Balboa Heights Post Office; rehabilitation of Coco Solo housing project; reconstruction of the air-conditioning system in the Civil Affairs Building; designs for retail store and gas station at Coco Solo, Civil Defense Control Center, and the Pacific side passenger and freight terminals; site development studies for a new housing development, studies and designs for improvements to quarters; rewiring of Administration Building, Cristobal, and replacement of electrical distribution system, Cristobal piers; replacement of raw water pumps and appurtenances at the Gamboa pump station; replacement of pumping and electrical systems for locks caisson No. 1; replacement of streets at Old Cristobal and Margarita; and remodeling of BOQ for an elementary school at Coco Solo.

Operations, and capital construction by contract

Nearing the fiscal year's end, contracts in force reached a peak of \$4,200,000 in March and April, and finished the year with \$3,800,000. This was a 280 percent increase over the \$1,500,000 at the beginning of the year. Forty-one Company/Government operations contracts were awarded during fiscal year 1958 having a total value of \$693,000. Forty-seven contracts for capital construction were awarded for a total of \$3,414,000 and the earnings amounted to \$980,000.

Boyd-Roosevelt highway maintenance

Regular maintenance and emergency work was accomplished on the 45.81 miles of this highway located within the Republic of Panama. Emergency work consisted of the removal of road-blocking slides and replacement of failed culverts.

Sosa Hill quarry

The quarry continued at a higher level of production than for the previous fiscal year.

	<i>Unit</i>	<i>Daily capacity</i>	<i>Produced fiscal year 1968</i>	<i>Produced fiscal year 1967</i>
Quarry and crushing-----	cubic yard-----	385	38,532	31,030
Concrete mixing plant-----	---do-----	230	4,538	3,511
Asphalt mixing plant-----	ton-----	160	13,134	6,053

Chapter IV

ADMINISTRATION

MAJOR ORGANIZATIONAL CHANGES

During the past fiscal year a number of organizational changes were made in an effort to improve efficiency within the operations and to provide better service to all concerned.

Effective July 1, 1957, a Tabulating Section was established in the General Ledger and Processing Branch of the Accounting Division, to replace the Machine Tabulating Section of the Administrative Branch.

Effective July 1, 1957, the general accounting functions of the Supply Division were transferred to the Supply Accounting Section in the Office of the Comptroller.

Effective July 14, 1957, Plant Accounting Branch and Plant Evaluation and Transfer Staff, were merged into one organizational unit, the Plant Accounting Branch.

Effective October 1, 1957, the Commissary Division, Hotels Washington and Tivoli, Service Center Division, and Division of Storehouses were consolidated into the Supply Division of the Supply and Community Service Bureau. This division now consists of the Commissary Branch, Service Center and Hotel Section, Motion Picture Unit, and Storehouse Branch. The Housing and Grounds Division was subdivided into Grounds Branch and Housing Branch.

Effective October 6, 1957, the Aids to Navigation Section of the Marine Bureau was consolidated with the Dredging Division of the Engineering and Construction Bureau.

On November 3, 1957, the responsibility for direction of the Procurement Division was transferred from the New York office to the Supply and Community Services Bureau, Canal Zone.

Effective November 7, 1957, the Hotel Washington was turned over to the Republic of Panama. Also transferred on this date to the Republic of Panama was pier No. 3, of the Terminals Division operation, Atlantic side.

On December 1, 1957, the U.S. Navy turned over the Flamenco Island signal station to the Marine Bureau, Port Captain, Balboa, for operation and maintenance.

Control of the Company/Government's capital obligations and expenditures was transferred from the Comptroller's office to the Engineering and Construction Director.

MAJOR PERSONNEL CHANGES

Col. Hugh M. Arnold (USA) (CE) was reassigned to Lieutenant Governor-Vice President, effective July 10, 1957, vice Colonel Herman W. Schull, Jr. (USA), relieved from duty July 9, 1957.

Col. John D. McElheny (USA), Lieutenant Governor-Vice President-designate, arrived in the Canal Zone preparatory to assuming duties upon departure of Col. Hugh M. Arnold, July 12, 1958.

Capt. Peter Grosz, Jr. (USA), was detailed from the U.S. Army as Military Assistant to the Governor, effective July 12, 1957, vice Major David H. Smith (USA), relieved from duty July 26, 1957.

Lt. Col. Robert D. Brown, Jr. (USA) (CE), was detailed from the U.S. Army, effective August 3, 1957, as Engineering and Construction Director, vice Colonel Hugh M. Arnold (USA) (CE), reassigned.

Mr. Lester A. Ferguson, General Manager, New York Operations, was reassigned to the position of Supply and Employee Service Director, effective October 29, 1957, vice Mr. Wilson H. Crook, deceased.

Mr. John J. Barton was transferred May 29, 1958, from the Procurement Division, to General Manager, Supply Division, Supply and Community Service Bureau.

Capt. James A. Flenniken (USN), was appointed Port Captain, Balboa, May 18, 1958, vice Captain Anthony C. Roessler (USN), relieved from duty with the Panama Canal Company May 8, 1958.

Mr. Edward N. Stokes, Superintendent, Railroad Division, was separated by reduction in force, effective July 31, 1957.

ORGANIZATION CHART

A chart of the Panama Canal organization as of June 30, 1958, is included with this report.

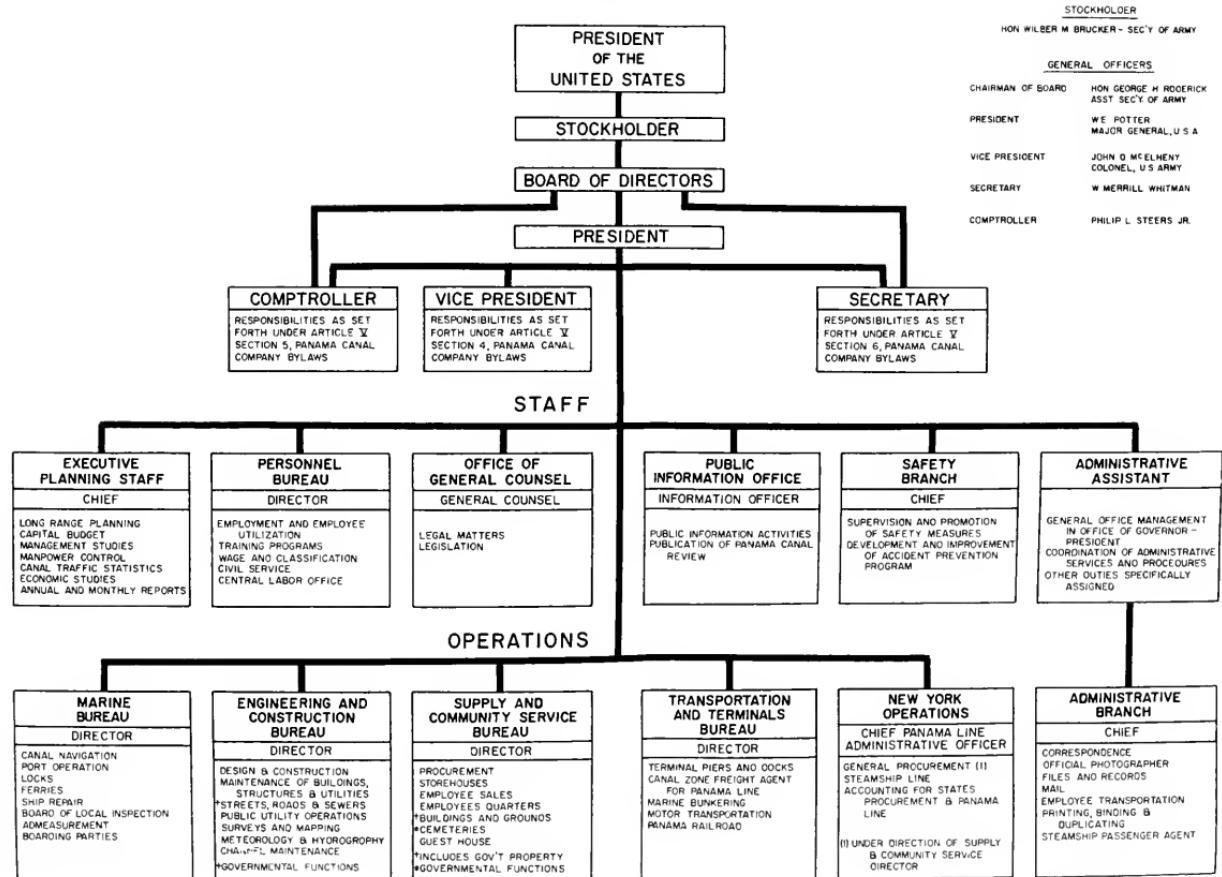
FORCE EMPLOYED AND RATES OF PAY

The full-time force employed by the Panama Canal Company as of June 30, 1958, totaled 10,844, an increase of 310, or 2.94 percent, over the number employed on June 30, 1957. The increase consisted principally of temporary employees who were employed for locks overhaul.

The highly diversified activities of the enterprise include a large number of different functions, and almost every employment category will be found in the organization. For many years only citizens of the United States were eligible for employment in executive, supervisory, professional, subprofessional, and clerical positions. During the past several years, however, properly qualified citizens of the Republic of Panama have been eligible for appointment to these positions in which special education, training, or other high qualifications are a requisite. The rates of pay for such positions, normally referred to as "U.S.-rate positions," are based on rates for similar positions in the Federal service in the United States plus, normally, a 25 percent tropical differential allowed in the case of U.S. citizens.

All positions for which the predominant area of recruitment is the Panama labor market constitute a second category, the Canal Zone wage group. The rates of pay within this group are based generally upon locally prevailing rates of pay. At the present time, most of these positions are those occupied by nonskilled or semiskilled workers, helpers, laborers, etc. However, the number of skilled positions in this group is increasing due to the increased utilization of non-U.S. citizens in all positions for which suitably qualified local applicants can be obtained. Most of these positions are filled by persons indigenous to the areas adjacent to the canal, although a scattering of nationals of other countries is included.

PANAMA CANAL COMPANY



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The full-time force of the Company for employees paid at U.S. rates on the isthmus numbered 2,463 on June 30, 1958, as compared with 2,389 on June 30, 1957, an increase of 74, or 3.10 percent. The full-time force of those paid at Canal Zone rates numbered 8,381 as of June 30, 1958, in comparison with 8,145 on June 30, 1957, an increase of 236, or 2.90 percent. In addition to employees in the Canal Zone there were 381 U.S. citizen employees in the New York office and 1 U.S. citizen and 10 non-U.S. citizens employed in Haiti on June 30, 1958, as compared with 380 in the New York office and 1 U.S. citizen and 9 non-U.S. citizens in the Haiti office on June 30, 1957, an increase of 2.

The number of employees by function will be found in tables 30 and 31, chapter V, pages 111 and 113.

EMPLOYEES PAID AT U.S. RATES¹

Turnover in force

Three hundred and eighty-four full-time employees for whom replacements were required terminated during fiscal year 1958, as compared with 345 in fiscal year 1957. There were 85 employments in addition to the 384 terminated employees who were replaced.

The net turnover rate (based on replacements on total terminations) was 10.9 percent as compared with 9.8 percent in fiscal year 1957. Voluntary terminations for the year totaled 222, a rate of 6.3 percent, in comparison with 217, a rate of 6.2 percent in the previous year. Involuntary terminations for fiscal year 1958 totaled 162, a rate of 4.6 percent, in comparison with 188, or a rate of 5.3 percent in fiscal year 1957.

Recruiting

Of the 469 full-time additions to the isthmian U.S.-rate force during fiscal year 1958, 81, or about 17 percent, were recruited from the United States, and 388, or about 83 percent, were recruited locally. The addition of these 469 employees represents an accession rate of approximately 13.3 percent.

At the close of fiscal year 1958, there were 45 U.S. requisitions pending, covering 58 U.S.-citizen positions.

Wages

On June 20, 1958, Public Law 85-426 granted a 10 percent increase in wages for Classification Act employees, retroactive to January 12, 1958. On May 27, 1958, Public Law 85-426 granted a similar increase for postal employees, retroactive to January 11, 1958. Wages of a number of other U.S.-rate groups, including craft, supervisory, floating equipment, power branch, railroad, printing plant, and miscellaneous, were adjusted upward during the fiscal year. The total annual cost involved was \$2,024,392. The cost for fiscal year 1958 amounted to \$893,261.

¹ Statistics in this section cover both Panama Canal Company and Canal Zone Government employees.

EMPLOYEES PAID AT CANAL ZONE WAGE RATES²*Wages*

No changes were reflected in the Canal Zone wage rate schedule during the fiscal year. Automatic and administrative pay increases at a total cost of approximately \$153,608 per annum were given to 2,954 employees during fiscal year 1958. Annual increases were given to approximately 100 schoolteachers in July 1957.

Cash relief for disabled employees

The Cash Relief Act of July 8, 1937, as amended, affords a non-contributory, unfunded system for the payment of gratuities to employees of the Panama Canal Company and the Canal Zone Government who are disabled through age or disease. This act provides for a maximum monthly benefit of \$1.50 multiplied by the number of years of service, not to exceed a total of \$45.

During fiscal year 1958, monthly payments averaged \$167,857 (\$155,700 for the Company and \$11,500 for the Government). The average monthly payment per case was \$37.81 for the Company and \$38.78 for the Government, with a combined average of \$37.88.

New applications totaled 339, of which 295 were approved for payment, as compared with 162 received and 89 approved for payment in fiscal year 1957. The increase in applications is the result of a policy of deferment begun in 1957 for all of those employees reaching 62 years of age pending passage of legislation to bring non-U.S. citizens under coverage of the Civil Service Retirement Act. This legislation was not passed during the first session and consequently those persons deferred in fiscal year 1957, as well as those employees who became disabled or who reached age 62, were considered for disability relief in fiscal year 1958.

Removals from the disability relief rolls due to death or subsequent reemployment totaled 255 for the Company and 19 for the Government. The number of disability relief beneficiaries as of June 30, 1958, totaled 4,456 (4,154 for the Company and 302 for the Government).

Repatriations

During fiscal year 1958, \$1,304 was expended for the repatriation and rehabilitation of four former non-U.S.-citizen employees and their eight dependents. The number who can qualify under present regulations is extremely small and this function is now of little consequence.

Separations

Separations of Canal Zone rate employees were for the most part involuntary. Of the 1,202 separations in fiscal year 1958, 7 were due to reductions in force, 279 were transfers to the disability relief rolls or deaths, 734 were terminations of temporary employees and discharges; 182 were resignations.

² Statistics in this section cover both Panama Canal Company and Canal Zone Government employees.

INCENTIVE AWARDS³

During the fiscal year 1958 the Company/Government organization continued its program designed to stimulate beneficial suggestions and meritorious performance of employees throughout both agencies.

Emphasis was placed on the quality of suggestions rather than on the quantity of contributions. This year 378 contributions were received in comparison with 503 in fiscal year 1957. Twenty-two honorary award recommendations and 49 suggestions were approved for cash awards totaling \$3,235. Tangible savings resulting from the adoption of the suggestions are estimated at \$51,824 per year, the highest estimate in the history of the program begun in 1956.

SAFETY PROGRAM

The safety program of the Panama Canal Company and the Canal Zone Government is designed to develop and improve the program of accident prevention, including the coordination of occupational health, sanitation, and fire-prevention activities, and by reducing disabling injuries, reduce the frequency rate, severity, and cost of accidents. These functions and responsibilities are further emphasized by the Federal Employees' Compensation Act, which in part authorizes and directs the heads of the various departments and agencies to develop, support, and foster organized safety promotion.

The Company/Government accident prevention program made gains in important areas during fiscal year 1958 over the previous 3-year average even though the year's activities included a hazardous locks overhaul and the Panama Line operations were, for the first time, included in the Company's safety records. The most notable single gain among the various bureaus and the New York operations was that of the Transportation and Terminals Bureau which lessened its disabling injury rate by a total of 50 percent during the past 3 fiscal years despite the fact that a large part of its operations include high accident-risk stevedoring work. This Bureau's stevedoring frequency rate for the calendar period 1955-57 was 9.27 as compared to the 46.50 average reported by the National Safety Council, for the entire stevedoring industry in the United States during the same period. In addition, the Marine Bureau and the Engineering and Construction Bureau made marked improvements in reducing disabling injuries to their personnel over the same period.

During the fiscal period, the safety program successfully strove to foster more active supervisor and employee participation in the program and a greater sense of responsibility on the part of these two groups for its success. The collective welfare was highlighted in terms of relief from painful injuries while obtaining tangible employment and other benefits from immediate and long-range economy of operation through the reduction of wasteful accidents. Stress was placed upon the importance of joint employee, supervisor, and management teamwork in accident prevention, which resulted in more closely knit efforts on the part of management officials and employees, and consequently in safer, improved equipment, conditions, and work

³ Statistics in this section cover both Panama Canal Company and Canal Zone Government employees.

practices. The results of this approach and its reception by supervisors and employees have been such that increased reduction in accidents is anticipated for fiscal year 1959. It is believed that the groundwork has been provided for long-range improvement in accident prevention in all areas of the Company/Government.

Two fatalities occurred during the period and 127 disabling injuries were sustained, resulting in considerably increased compensation costs and arbitrary lost-time charges. However, this is the second lowest number of disabling injuries recorded in a single year since 1941, or since the opening of the canal for that matter. The fatality rate this year is equivalent to 1 accidental death for every 6,775 employees, as compared to the national average of 1 death for every 4,348 workers employed, as reported for calendar year 1956 by the National Safety Council. There were three injuries causing permanent partial disability as compared to four last year, and there was one permanent total disability case this fiscal year.

This year's disabling injury frequency rate of 4.64 represents a 39-percent increase over last year's rate of 3.35. However, this was the third time in the history of the organization's accident prevention program that the frequency rate was lower than the most recently published national average of 6.27, which was a new low experienced by all industry during the calendar year 1957, as reported by the National Safety Council. This year's severity rate of 787 represents an increase of 395 percent over the 1957 rate of 159. This rate represents the time charges in days per million man-hours of exposure. Disabling injuries increased by 44 percent this fiscal year in comparison with only 88 sustained during 1957.

As a result of the safety achievements earned throughout the period, the National Safety Council presented its highest award, the Award of Honor for calendar year 1957 to the Company/Government and to the Transportation and Terminals Bureau. This award is earned on the basis of "outstanding improvement" in both disabling injury frequency and severity over "par" rates prescribed by the Council to rule out chance fluctuations.

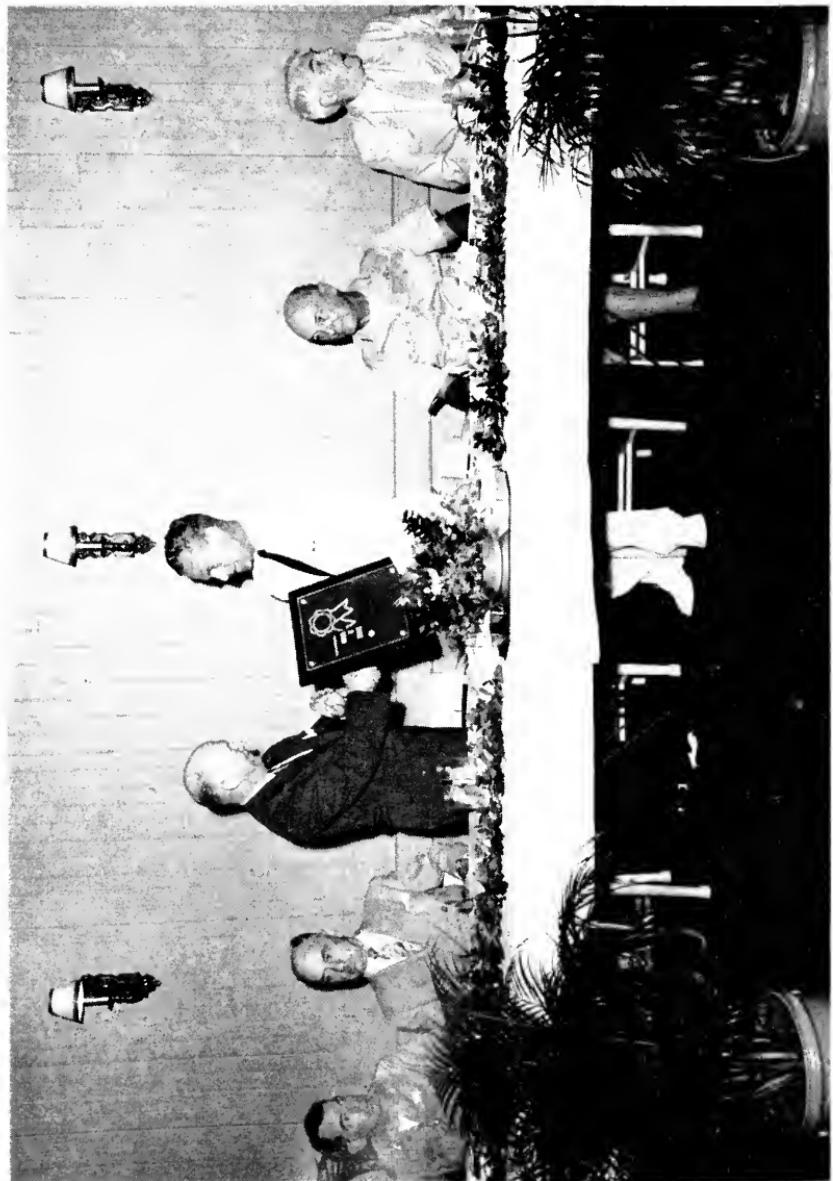
The Governor-President Annual Safety Trophy, awarded each calendar year to the bureau achieving the highest percentage improvement in disabling injury frequency rate over its own previous 3-year average, was awarded to the Transportation and Terminals Bureau for their 64-percent improvement in 1957.

Safety Statistics

	Fiscal year	
	1958	1957
Employee-hours of exposure-----	27,342,000	26,251,000
Disabling injuries-----	127	88
Injuries causing permanent partial disability-----	3	4
Injuries causing permanent total disability-----	1	0
Frequency rate ¹ -----	4.64	3.35
Severity rate ² -----	787	159
Number of fatalities-----	2	0
Days charged-----	21,516	4,163

¹ Disabling injuries per million employee-hours of exposure.

² Severity rate is the time charged in days, per million employee-hours of exposure.



Hon. George H. Roderick Presenting Safety "Award of Honor" to Governor Potter.

LEGISLATION

During fiscal year 1958, Congress enacted six laws, briefly discussed below, which apply to or affect the canal enterprise (in addition to appropriation acts and various general acts which contain provisions applicable to these agencies or to the Canal Zone).

The act of August 30, 1957 (Public Law 85-223, 85th Cong.; 71 Stat. 509), authorized the conveyance of various lands and improvements to the Republic of Panama in fulfillment of the 1955 treaty and accompanying memorandum of understandings.

The act of August 30, 1957 (Public Law 85-231, 85th Cong.; 71 Stat. 514), amends the Fair Labor Standards Act of 1938, as amended, to clarify its application in the Canal Zone and certain other overseas areas.

The act of February 20, 1958 (Public Law 85-331, 85th Cong.; 71 Stat. 16), amends section 216(b) of the Merchant Marine Act, 1936, as amended, to provide for appointments of cadets from the District of Columbia, Guam, American Samoa, Virgin Islands, and the *Canal Zone*. The effect of this act, so far as the canal enterprise is concerned, is to include the Governor of the Canal Zone among officials authorized to nominate candidates for annual competitive examinations for the Academy, and provide for the allocation of two vacancies each year to the Canal Zone.

The act of March 17, 1958 (Public Law 85-346, 85th Cong.; 72 Stat. 37), amends the Canal Zone Code to provide for the transfer to the Canal Zone postal revenues of the amounts of money orders issued by the Canal Zone postal service and remaining unpaid after 20 years from date of issuance.

The act of May 19, 1958, amends section 831 of title 5 of the Canal Zone Code so as to make it a felony to injure or destroy communication facilities in the Canal Zone.

The act of June 18, 1958 (Public Law 85-460, 85th Cong.; 72 Stat. 200), amends the definition of the term "State" in the Veterans' Readjustment Assistance Act and the War Orphans' Educational Assistance Act to clarify the question of whether the benefits of those acts may be afforded to persons pursuing a program of education or training in the Canal Zone.

Chapter V

FINANCIAL REPORT AND STATISTICAL DATA

FINANCIAL STATEMENTS AND RELATED SUPPLEMENTARY REPORTS FOR THE YEAR ENDED JUNE 30, 1958

The financial statements of the Panama Canal Company appearing in tables 1 through 11, with the accompanying notes, fairly present the financial position of the Company at June 30, 1958, and the financial results of its operations for the fiscal year then ended. Tables 9 through 11 were previously published on October 10, 1958, as an official release to the press and were included in the Annual Report of Board of Directors to Stockholder.

All statements have been examined by the Internal Audit Staff of the Company, and are subject to audit by the General Accounting Office. Audit reports of the General Accounting Office are directed to the Congress and are printed as congressional documents.

Supplementary information concerning funds, operating results, payments to the U.S. Treasury, net direct investment of the U.S. Government, and retained revenue is presented in the tabulations and comments which follow:

Source and application of funds

The following is a condensed statement of funds provided and applied during the year ended June 30, 1958:

FUNDS PROVIDED:

Income from operations (table 3)-----	\$2, 656, 382
Add back nonfund transactions:	
Provision for depreciation-----	\$5, 262, 336
Provision for locks overhaul-----	1, 040, 800
Amortization of slide hazard-----	200, 000
Miscellaneous-----	50, 261

	6, 553, 397
Total funds from current operations-----	-----
Currently realized proceeds from sale of SS <i>Panama</i> -----	9, 209, 779
Excess of market over book value of Canal Zone Government properties transferred to Republic of Panama under 1955 treaty-----	1, 069, 500
Decrease in accounts receivable-----	372, 540
Decrease in inventories-----	640, 368
Increase in current liabilities-----	23, 343
Appropriation for Panama Canal bridge-----	145, 164
	750, 000
Total funds provided-----	-----
	12, 210, 694

FUNDS APPLIED:

Acquisition of fixed assets	\$7,738,274
Less net plant salvage	310,408
Cost of overhaul of canal locks	\$7,427,866
Increase in cash	2,796,548
Increase in other current assets	1,791,211
Panama Canal bridge expenditures	8,014
	187,055
Total funds applied	<u><u>12,210,694</u></u>

Financial operating results

Since its reorganization on July 1, 1951, the Panama Canal Company has completed 7 years of operation without cost to the American taxpayer. Net revenue for the fiscal year ended June 30, 1958, after provision for payment to the U.S. Treasury of \$8.8 million interest on the U.S. Government's direct investment, and \$10.7 million covering net cost of the Canal Zone Government, was \$2.66 million as compared with net revenue of \$3.82 million for the preceding year.

As to dollar volume of traffic, fiscal year 1958 was the best in the history of the Panama Canal. Tolls and tolls credits reached an all-time high of \$42.8 million, as compared with the previous highs of \$39.7 million for the preceding year and \$37.5 million in 1953. The decline in net revenue was caused by a sharp rise in operating expenses, primarily due to wage increases, which more than offset the increase in tolls.

Net direct investment of the U.S. Government

Certain properties, having an appraised market value of \$4.8 million, were transferred to the Republic of Panama to fulfill treaty obligations. Additional properties, having an appraised market value of \$14.7 million, will be so transferred during subsequent years. Public Law 85-223, approved August 30, 1957, provides for a reduction in the interest-bearing investment of the U.S. Government for the economic loss based on market value of such properties transferred and on net capital loss of certain properties which have become excess due to the Treaty.

Retained revenue

As provided by section 246 of title 2 of the Canal Zone Code, as amended, the Company's retained revenue consists of all net revenue from operations of the Company and its predecessor, the Panama Railroad Company (New York), from and after 1904 plus the undisbursed net revenue prior to 1904. All capital repayments made to the U.S. Government by both corporations are treated by law as repayments of the Government's direct investment in the Company and serve thereby to reduce the interest-bearing portion of the Government's equity. The amounts thus applied to date are shown in Table 2, Comparative Statement of Equity of U.S. Government.

Retained revenue, exclusive of a \$10 million emergency fund held by the U.S. Treasury, increased from \$85,564,383 at June 30, 1957, to \$88,548,430 at June 30, 1958. The composition of retained revenue is detailed in Table 2, Comparative Statement of Equity of U.S. Government.

Table 1.—Statement of Financial Condition, June 30, 1958

Assets

CURRENT ASSETS:	
Fund balances with U.S. Treasury and cash:	
Fund balances:	
Checking account-----	\$26, 862, 697
Allocation from U.S.	
Government agencies-----	8, 905
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Cash in commercial banks, on hand and transit-----	\$26, 871, 602
	<hr/>
Notes receivable-----	3, 892, 555
	<hr/>
	\$30, 764, 157
Notes receivable-----	1, 069, 500
Accounts receivable:	
Canal Zone Government-----	\$1, 387, 436
Other U.S. Government agencies-----	513, 374
Others-----	1, 438, 172
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	3, 338, 982
Inventories, principally at average cost (table 7):	
Materials and supplies, less allowance of \$1,047,906 for excess, obsolete, and in- active stocks-----	\$4, 491, 880
Merchandise held for sale-----	3, 412, 911
	<hr/>
	7, 904, 791
Other current assets-----	<hr/>
	201, 339
Total current assets-----	<hr/>
	43, 278, 769
LONG-TERM NOTES RECEIVABLE-----	2, 139, 000
FIXED ASSETS (note 1 and table 8):	
Cost-----	\$598, 011, 736
Less depreciation and valuation allowances-----	185, 562, 286
	<hr/>
	412, 449, 450
PANAMA CANAL BRIDGE:	
Fund balance with U.S. Treasury-----	\$590, 382
Construction work in progress-----	159, 618
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	750, 000
DEFERRED CHARGES AND OTHER ASSETS-----	<hr/>
	4, 044, 907
	<hr/>
	462, 662, 126

Table 1.—Statement of Financial Condition, June 30, 1958—Continued*Liabilities and equity***CURRENT LIABILITIES:**

Accounts payable:	
U.S. Government agencies-----	\$1, 355, 164
Others-----	2, 349, 927
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Due U.S. Treasury:	
Net cost of Canal Zone Government-----	\$1, 644, 310
Interest on net direct investment-----	710, 994
Annuity payment to Republic of Panama-----	35, 833
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Accrued liabilities:	
Salaries and wages-----	\$1, 794, 103
Employee's accrued leave-----	6, 606, 940
Damages to vessels-----	463, 833
Others-----	432, 230
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Customers' deposits and advances (includes Army funds of \$8,905)-----	9, 297, 106
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Other current liabilities-----	345, 149
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Total current liabilities-----	315, 030
	<hr/>
	16, 053, 513

RESERVES:

Periodic overhaul of canal locks-----	\$1, 448, 531
Noncapital costs of power conversion-----	4, 000, 000
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	5, 448, 531

EQUITY OF U.S. GOVERNMENT (note 2 and table 2):

Net direct investment, interest-bearing-----	\$351, 861, 652
Retained revenue, noninterest- bearing-----	\$98, 548, 430
Less fund on deposit with U.S. Treasury, available on loan basis without in- terest-----	10, 000, 000
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Panama Canal bridge-----	88, 548, 430
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	750, 000
	<hr/>
	441, 160, 082
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	462, 662, 126
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The accompanying "Notes Pertaining to Financial Statements" are an integral part of this statement.

NOTES TO FINANCIAL STATEMENTS, JUNE 30, 1958

1. *Fixed assets.*—Fixed assets generally are stated at cost, or if acquired from another Government agency at original cost to such agency. Valuation allowances have been established in accordance with sections 246 and 412 of title 2 of the Canal Zone Code (1) to offset the cost of defense facilities and suspended construction projects—principally the partial construction of a third set of locks abandoned in the early part of World War II—totaling \$89.4 million and interest during original construction aggregating about \$50.9 million; and (2) to reduce to usable value the cost of those fixed assets transferred to the Company from The Panama Canal (agency) at July 1, 1951. Depreciation or amortization allowances have not been provided on certain assets—land titles, treaty rights, and excavations of channels, harbors, basins, and other works—costing about \$281 million based on historical practice and a construing of the Canal Zone Code as not requiring the depreciation or amortization of such costs. Depreciation allowances on all other fixed assets are accumulated on a straight-line group basis; losses or gains on retirements generally are charged or credited to the accumulated allowances.

2. *Equity of the U.S. Government.*—The equity of the U.S. Government in the Company consists of the net direct investment, established in accordance with section 246 of title 2 of the Canal Zone Code, and the retained revenues. The Company is required to pay interest to the U.S. Treasury on the net direct investment at a rate established by the Secretary of the Treasury. The rates for 1958 and 1957 were, respectively, 2.482 and 2.485 percent.

An emergency fund of \$10 million is available in the U.S. Treasury from which the Company may borrow funds for authorized purposes on an interest-free basis for limited periods. The fund was established by the predecessor Company in June 1948 out of retained revenues pursuant to section 254 of title 2 of the Canal Zone Code.

Public Law 85-223, authorizing the transfer of properties to the Republic of Panama pursuant to the 1955 treaty, provided for a reduction in the net direct investment of the U.S. Government of the market value of the properties—aggregating about \$14.7 million—and of any capital losses sustained in the relocation or disposal of facilities resulting from the treaty. The net direct investment was reduced \$4.8 million during fiscal year 1958 representing the market values of the properties transferred to Panama during the year.

Public Law 753, 84th Congress, directed the Company to construct, maintain, and operate a high-level bridge across the canal at Balboa; the costs of construction and of maintenance and operation to be treated as extraordinary costs incurred through a directive based on national policy and not related to the operations of the Company. An appropriation of \$750,000 for planning and engineering studies was made in fiscal year 1958. An additional appropriation of \$19,250,000 for construction of the bridge became available on July 1, 1958.

3. *Contingent and other liabilities.*—The Company has outstanding, at all times, contingent and continuing liabilities in indeterminable amounts arising principally from monthly relief benefits payable to retired alien employees; benefits payable under provisions of the Federal Employees Compensation Act; commitments for construction work, supplies, and services; and pending suits and claims.

The relief payments to be made to retired alien employees in fiscal year 1959 are estimated at \$1.9 million. Commitments under uncompleted construction contracts and unfilled purchase orders amounted to about \$8.5 million at June 30, 1958. The maximum liability which would result from outstanding claims and lawsuits is estimated to be about \$3 million.

Public Law 85-550, approved July 25, 1958, bringing non-U.S.-citizen employees under the civil service retirement system resulted in a payment to the U.S. Civil Service Commission of about \$4.9 million for retroactive costs to June 30, 1958. These costs will be recorded as an adjustment of retained income.

The Company held at June 30, 1958, negotiable U.S. Government securities in the face amount of \$770,000, deposited by customers to guarantee payment of tolls and other charges and, on behalf of the Canal Zone Government, securities in the face amount of \$391,500 to guarantee payment of possible judgments rendered against insurance companies operating in the Canal Zone.

Table 2.—Statement of Equity of U.S. Government, June 30, 1958

NET DIRECT INVESTMENT:	
Capital stock in Panama Railroad Company-----	\$7,000,000
Valuation of net assets transferred from The Panama Canal (agency)-----	402,176,883
Gross direct investment-----	409,176,883
Less dividends and other charges deductible from direct investment:	
Capital repayments to U.S. Treasury:	
Prior to June 30, 1951-----	23,994,905
Subsequent to June 30, 1951-----	15,000,000
Appraised value of properties conveyed to the Republic of Panama without reimbursement:	
Dec. 16, 1943-----	11,759,956
Nov. 7, 1957-----	4,820,000
Property transfers, other U.S. Government agencies, net-----	1,740,370
Total deductions-----	57,315,231
Net direct investment-----	351,861,652
RETAINED REVENUE:	
Retained revenue at July 1, 1951-----	71,136,026
Net revenue subsequent to July 1, 1951-----	22,812,635
Extraordinary (charges) and credits to retained revenue:	
Net gain on sale of SS <i>Panama</i> -----	4,272,104
Excess of market over book value of properties transferred to Republic of Panama under 1955 treaty:	
Panama Canal Company properties-----	3,955,125
Canal Zone Government properties-----	372,540
Provision for noncapital power conversion costs-----	(4,000,000)
Less fund held by U.S. Treasury-----	98,548,430
Retained revenue-----	10,000,000
PANAMA CANAL BRIDGE-----	88,548,430
	750,000
EQUITY OF UNITED STATES GOVERNMENT-----	441,160,082

The accompanying "Notes Pertaining to Financial Statements" are an integral part of this statement.

**Table 3.—Statement of Revenue and Expenses, Year Ended
June 30, 1958**

	<i>Total</i>	<i>Canal operations (table 4)</i>	<i>Supporting service operations (table 5)</i>
REVENUE:			
Canal tolls-----	\$41, 843, 525	\$41, 843, 525	-----
Credit for tolls on U.S. Government vessels-----	990, 481	990, 481	
Sales of commodities-----	17, 706, 260	-----	\$17, 706, 260
Sales of services-----	19, 970, 846	3, 694, 093	16, 276, 753
Rental of quarters-----	2, 599, 497	-----	2, 599, 497
Total revenue-----	83, 110, 609	46, 528, 099	36, 582, 510
OPERATING EXPENSES:			
Direct expenses and interdivisional sales and services-----	56, 592, 645	19, 029, 933	37, 562, 712
Cost of commodities sold-----	13, 361, 199	-----	13, 361, 199
Depreciation-----	5, 140, 134	2, 030, 610	3, 109, 524
Total operating expenses-----	75, 093, 978	21, 060, 543	54, 033, 435
Less interdivisional sales and services-----	20, 871, 875	1, 332, 584	19, 539, 291
Net operating expenses-----	54, 222, 103	19, 727, 959	34, 494, 144
OPERATING INCOME:			
	28, 888, 506	26, 800, 140	2, 088, 366
GENERAL CORPORATE EXPENSES:			
Net cost of Canal Zone Government (table 3, Canal Zone Government financial statements)-----	10, 737, 194		
Interest on net direct investment of the U.S. Government-----	8, 778, 560		
Administrative and other expenses (includes \$122,202 depreciation) (table 6)-----	6, 716, 370		
Total general corporate expenses-----	26, 232, 124		
NET REVENUE:			
	2, 656, 382		

The accompanying "Notes Pertaining to Financial Statements" are an integral part of this statement.

Table 4.—Statement of Revenue and Operating Expenses, Canal Operations, Year Ended June 30, 1958**REVENUE:**

Canal tolls.....	\$41,843,525
Credit for tolls on U.S. Government vessels.....	990,481
Harbor pilotage, tug, launch, and other services.....	3,694,093
Total revenue.....	46,528,099

<i>Direct expense and inter- divisional sales and services</i>	<i>Depreci- ation</i>
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OPERATING EXPENSES:

Navigation services and control.....	\$6,391,727	\$261,070
Locks operation and maintenance.....	5,717,016	1,224,798
Provision for periodic overhaul of locks.....	1,040,800	-----
Dredging of channel and harbors.....	2,972,002	356,517
Amortization of cost of removing slide hazard.....	200,000	-----
Meteorology and hydrography.....	383,188	8,724
Operation and maintenance of dams, reservoirs, and spillways.....	81,710	115,573
Operation and maintenance of ferry across canal.....	522,062	52,297
Annuity to Republic of Panama (repayment to U.S. Treasury).....	430,000	-----
Damage to vessels.....	355,658	-----
Other operating expenses.....	935,770	11,631

Total operating expenses.....	19,029,933	2,030,610
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Less interdivisional sales and services.....	-----	\$21,060,543
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-----	1,332,584
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Net operating expenses.....	-----	19,727,959
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OPERATING INCOME (table 3).....

-----	26,800,140
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Table 5.—Statement of Revenue and Operating Expenses, Supporting Services, Year Ended June 30, 1958

Revenues										Operating expenses				
					Directed expenses and inter-divisional sales and services					Cost of command ships sold	Depreciation	Less inter-divisional sales and services	Net operating expenses	Operating income or (loss)
Sales of canal-nishes:														
Maritime services:														
Marine terminal operations	\$4,758,776				\$4,758,776	\$4,249,170				\$400,057	\$337,200	\$4,112,027	\$646,749	
Vessel repairs operations	1,637,238				1,537,238	2,684,455				93,875	1,372,221	1,406,103	131,123	
Hotel Washington operations	38,544				64,001	29,024	\$13,248			3,321	1,612	43,981	20,020	
Total maritime services	25,457	6,334,598			6,390,015	6,962,649	13,248	497,253	1,911,033	5,562,117	797,798			
Employees' services:														
Commissaries	13,230,516	168,728			13,399,244	5,214,370	10,493,140	147,375	2,585,272	13,269,613	129,631			
Service centers	2,902,977	265,206			3,168,183	1,405,755	1,786,622	93,551	118,877	3,107,051	1,132			
Housing operations:														
U.S.-rate quarters														
Local rate quarters						1,972,651	1,972,651			573,507	67,441	1,499,948	472,703	
Total employees' services	16,133,493	433,934	2,593,497	19,166,924	8,123,775	12,279,762		962,297	2,785,105	18,580,729	586,195			
Transportation and utilities services:														
Railroad														
Motor transportation														
Steamship line	124,665				124,665	1,448,640				235,022	1,587,316	96,346	28,319	
Power system	4,630,631				4,677,572	5,938,511	21,896	170,126	1,351,920	4,788,613	111,041			
Communication system	1,415,824				1,415,824	1,750,292				582,190	1,179,588	1,152,894	262,930	
Water system	293,317				293,317	449,169				63,547	270,421	242,956	51,022	
Total transportation and utilities services	46,941	8,438,263			1,155,122	1,155,122	938,031			245,225	253,341	930,915	224,207	
Other supporting services:														
Engineering and maintenance services														
Supply operations	604,706				694,706	4,682,462				118,742	4,228,920	572,284	122,422	
Scrap operations	20,620				1,103,078	3,969,428	829,024			98,486	3,982,118	914,760	188,318	
Procurement division	161,415	880			162,295	44,183	85,861			5,412	10,546	124,910	37,385	
Tivoli Guest House														
Printing plant	133,816													
Grounds maintenance	18,237													
Total other supporting services	1,069,998													
TOTAL OPERATING INCOME (table 3)	1,500,369													
TOTAL, 17,706,260	16,276,733	2,590,497	36,582,510	37,562,712	13,361,199	3,106,524	19,539,291	34,494,144	2,088,366					

Table 6.—Administrative and Other General Expenses, Year Ended June 30, 1958

ADMINISTRATIVE EXPENSES UNDER STATUTORY LIMITATION:	
Comptroller's office and staff-----	\$1, 901, 919
Personnel Bureau-----	526, 648
President's office and staff-----	507, 727
Administrative Branch-----	318, 262
Office of the Secretary-----	67, 624
Provision for General Accounting Office audit services-----	97, 329
Board of Directors' expenses-----	15, 846
Consultants and advisers-----	7, 734
Branch accounting offices-----	263, 898
Office of Marine Director-----	98, 851
Office of Engineering and Construction Director-----	118, 494
Office of Supply and Employee Service Director-----	71, 612
Office of Transportation and Terminals Director-----	47, 232
General and special engineering services-----	158, 404
Apprentice program-----	67, 810
Public services-----	76, 211
Maintenance of Company buildings-----	147, 024
Duplicating unit-----	72, 130
Alien cash relief-----	1, 867, 919
Employees' States travel-----	673, 806
Recruiting and repatriation-----	200, 485
Death and disability compensation-----	88, 669
Provision for retroactive pay adjustment-----	146, 041
Leave liability variation-----	85, 365
Contribution to Federal employees' government life insurance-----	59, 232
Other miscellaneous expense-----	31, 833
Depreciation-----	99, 639
Total-----	<u>7, 817, 744</u>
OTHER GENERAL EXPENSES NOT UNDER STATUTORY LIMITATION:	
Branch Accounting Office-----	70, 715
Inventory reserve expense-----	170, 000
Noncapital losses resulting from treaty implementation-----	467, 427
Provision for retroactive pay adjustment-----	247, 986
Leave liability variation-----	70, 758
Other miscellaneous expenses-----	(113, 306)
Depreciation-----	22, 563
Total-----	<u>936, 143</u>
Total administrative and other general expenses-----	<u>8, 753, 887</u>
LESS REVENUES AND OTHER CREDITS:	
Revenues-----	287, 835
Administrative expenses assessed to Canal Zone Government-----	750, 000
Distribution of alien cash relief-----	966, 554
Other transfers of costs-----	33, 128
Total revenues and other credits-----	<u>2, 037, 517</u>
NET ADMINISTRATIVE AND OTHER GENERAL EXPENSES (table 3)-----	<u>6, 716, 370</u>

Table 7.—Inventories, June 30, 1958

MATERIALS AND SUPPLIES:

Storehouse Branch:

General materials and supplies	\$3,793,239
Petroleum products	167,190
Scrap	213,237
In transit to isthmus	306,329
	<hr/>
	4,479,995

Other divisions' stock:

Dredging Division	99,471
Commissary Branch	86,570
Locks Division	104,259
Railroad Division	186,589
Construction and maintenance activities	162,158
Water system	57,557
Steamship line	67,443
Industrial Division	36,003
Terminals Division	96,817
Motor Transportation Division	58,992
Printing plants	3,012
Electric power system	45,937
	<hr/>
	1,004,808

Manufacturing and repair work in progress:

Industrial Division	54,755
Other units	228
	<hr/>
	54,983

Less allowance for losses	5,539,786
	<hr/>
Total materials and supplies	1,047,906
	<hr/>
	4,491,880

MERCHANDISE HELD FOR SALE:

Commissary Branch:

In warehouses and in stores	2,648,775
In transit to isthmus	590,536
	<hr/>
Service centers	3,239,311
Tivoli Guest House	162,488
Steamship line	6,798
	<hr/>
Total merchandise held for sale	4,314
	<hr/>

TOTAL INVENTORIES (table 1)	3,412,911
	<hr/>
	7,904,791

Table 8.—Changes in Fixed Assets and Related Allowances for Depreciation and Economic Valuation, Year Ended June 30, 1958

CANAL AND OTHER MARINE FACILITIES:	Fixed assets			Balances June 30, 1958
	Current addi- tions	Adjustments	Transfers	
Lands, titles, and treaty rights:				\$10,000,000
Treaty payments to Republic of Panama, 1904	\$10,000,000	-----	-----	\$10,000,000
Deposits in Canal Zone	4,728,889	-----	-----	4,728,889
Lands owned in fee, Colon, Republic of Panama	1,532,500	-----	-----	984,882
Total lands, titles, and treaty rights	16,281,389	-----	(27,658)	15,713,771
Interest during construction	50,892,311	-----	-----	50,892,311
Canal excavation, fills, and embankments:				
Canal channel, harbors, and basins:				228,669,342
Dams	14,999,298	-----	-----	14,999,298
Locks, excavations	1,613,816	-----	-----	1,613,816
Breakwaters	9,287,095	-----	-----	9,287,095
Spillways	1,733,999	-----	-----	1,733,999
Total canal excavations, fills, and embankments	265,262,265	1,041,285	-----	266,303,550
Canal structures and equipment:				
Locks Division	70,336,149	64,195	(668)	(1,546,645)
Dredging Division	12,591,718	28,168	-----	(4,415)
Dams and spillway structures	10,033,351	-----	-----	(601,231)
Port Capitals, Balboa and Cristobal	5,818,153	36,409	-----	1,155,674
Aids to navigation	3,092,328	8,946	74,610	64,252
Meteorological and Hydrographic Branch	194,087	3,004	-----	157
Ferry facilities	1,619,434	-----	-----	328,769
Industrial Division salvage depot	232,572	-----	-----	10,274
Engineering Division	36,198	5,076	-----	3,920
Total canal structures and equipment	112,963,990	145,798	73,942	20,816
Total canal and other marine facilities	445,399,955	1,187,063	46,284	(805,284)
OTHER MARINE FACILITIES:				
Marine Terminals Division	17,500,504	239,641	-----	(98,358)
Industrial Division	6,550,209	12,735	3,888	(246,635)
Hotel Washington	763,141	-----	-----	(763,041)
Total other maritime facilities	24,813,754	252,276	3,888	(1,108,034)

SUPPORTING AND GENERAL FACILITIES:	
Transportation and utilities:	
Panama Railroad.....	11,736,543
Motor Transportation Division.....	140,924
Steamship line.....	12,780
Power system.....	41,601
Communication system.....	60,259
Water system.....	50,384
Total transportation and utilities.....	312,105
Employee services and facilities:	
Commissary Division.....	6,578,570
Service centers.....	3,371,165
Housing Division.....	34,132,506
Total employee services and facilities.....	44,082,241
Other supporting services:	
Tivoli Guest House.....	422,104
Printing plant.....	332,073
Grounds maintenance.....	2,137
Engineering, maintenance,.....	2,759,758
Storehouse Division.....	3,675,878
Total other supporting services.....	7,512,509
General facilities:	
Miscellaneous Company buildings.....	2,933,957
Miscellaneous office equipment—Isthmus.....	1,058,700
Miscellaneous office equipment—New York Office.....	48,062
Total general facilities.....	4,040,719
Total supporting and general facilities.....	113,545,176
Total fixed assets in service.....	583,758,885
FACILITIES HELD FOR FUTURE USE:	
Construction and retirements in progress:	
Construction work.....	7,414,878
Retirements.....	3,269,547
Total construction and retirements in progress.....	10,684,425

**Table 8.—Changes in Fixed Assets and Related Allowances for Depreciation and Economic Valuation,
Year Ended June 30, 1958—Continued**

	Fixed assets					
	Balances June 30, 1957	Current addi- tions	Adjustments	Transfers	Retirements	Balances June 30, 1958
RESERVE FOR EARLY RETIREMENT OF 25-CYCLE POWERPLANT						
Total fixed assets in service, construction and retirements in progress, facilities held for future use and reserve	\$595,959,366	\$7,254,302	(\$1,989,020)	\$43,635	(\$3,256,647)	\$598,011,736
DEFENSE FACILITIES AND SUSPENDED CONSTRUCTION PROJECTS:						
Defense facilities:						
Canal defense property	37,624,715				(41,485)	37,583,230
Navy reserve ship repair facilities	9,019,491					8,975,856
Total defense facilities	46,644,206				(41,485)	46,559,086
Suspended construction projects:						
31 set of locks	38,197,203					38,197,203
Isthmian sea level canal studies, 1947	4,622,738					4,622,738
Total suspended construction projects	42,819,941					42,819,941
Total defense facilities and suspended construction projects	89,464,147					89,379,027
Totals	685,423,513	17,254,302	(1,989,020)		(3,298,032)	687,390,753

See footnote on p. 61.

		Allowances for depreciation and economic valuation					
		Balances June 30, 1937	Current de- preciation	Adjustments	Transfers	Retirements	Balances June 30, 1938
CANAL AND OTHER MARINE FACILITIES:							
Lands, titles, and treaty rights:							
Treaty payments to Republic of Panama, 1904							\$10,000,000
Depopulation of Canal Zone							4,728,889
Lands owned in fee, Colon, Republic of Panama							984,882
Total lands, titles, and treaty rights							15,713,771
Interest during construction							
Canal excavation, fills, and embankments:							
Canal channel, harbors, and basins							228,669,342
Dams							14,999,298
Locks, excavations							11,613,816
Breakwaters							9,287,065
Spillways							1,733,999
Total canal excavations, fills, and embankments							266,303,550
Canal structures and equipment:							
Locks Division		\$4,326,818	\$1,224,798				35,557,309
Dredging Division		6,589,624	356,517	(\$855)			5,646,590
Dams and spillway structures		3,405,235	115,573				4,824,752
Port Captains, Balboa and Cristobal		4,134,906	182,714				6,512,543
Aids to navigation		1,645,313	78,356	41,494			2,033,873
Meteorological and Hydrographic Branch		1,102,712	6,745				1,927,152
Ferry facilities		1,252,506	52,297				87,485
Industrial Division salvage depot		157,557	11,631				643,400
Engineering Division		19,583	1,980				75,258
Total canal structures and equipment		51,634,234	2,030,611	40,839	25,959		26,906
Total canal and other marine facilities		102,526,565	2,030,611	40,839	25,959		59,324,059
OTHER MARITIME FACILITIES:							
Marine Terminals Division		12,555,830	400,057				
Industrial Division		4,342,190	93,878				
Hotel Washington		580,120	3,320				
Total other maritime facilities		17,478,140	497,252				6,753,747

**Table 8.—Changes in Fixed Assets and Related Allowances for Depreciation and Economic Valuation,
Year Ended June 30, 1958—Continued**

	Allowances for depreciation and economic valuation					Balances June 30, 1958	
	Balances June 30, 1957	Current de- preciation		Transfers	Retirements		
		Adjustments	Transfers				
SUPPORTING AND GENERAL FACILITIES:							
Transportation and utilities:							
Panama Railroad	\$10,286,976	\$79,388		\$8,573	\$10,357,791	\$1,374,824	
Motor Transportation Division	1,244,080	235,022	\$1,620	(73,025)	1,407,697	933,902	
Steamship line	6,228,615	107,336		(34)	6,396,318	2,763,702	
Power system	9,410,898	582,190	\$118	(40,090)	(228,557)	9,724,259	
Communication system	2,042,594	63,547		(6,042)	(5,228)	11,174,046	
Water system	4,683,942	245,226	(1,379)	846	(181,306)	4,757,329	
Total transportation and utilities	33,907,005	1,373,209	(1,261)	(43,660)	(497,023)	22,813,167	
Employee services and facilities:							
Commissionary Division	4,030,644	147,375	10,506	(286,075)	(48,359)	3,854,181	
Service centers	1,133,086	93,551	(41)	255	(54,739)	1,172,112	
Housing Division	11,766,286	721,370	13,631	(1,004,016)	(584,300)	10,912,911	
Total employee services and facilities	16,930,016	962,296	24,186	(1,289,886)	(687,458)	15,939,204	
Other supporting services:							
Tivoli Guest House	363,226	11,263		48	(3,396)	371,141	
Printing plant	224,887	13,142			(4,155)	233,874	
Grounds maintenance	213,892	26,514	75		9,077	249,558	
Engineering maintenance	1,742,933	118,742		90,632	(101,708)	1,850,599	
Storehouse Division	1,784,370	103,869	424	(252,356)	(146,357)	1,480,950	
Total other supporting services	4,329,308	273,530	499	(161,676)	(246,539)	4,195,122	
General facilities:							
Miscellaneous Company buildings	1,815,746	65,564		32,988	(230,980)	1,683,298	
Miscellaneous office equipment—Isthmus	603,739	50,991	465	(7,085)	(2,006)	646,104	
Miscellaneous office equipment—New York Office	16,921	5,363		(1,033)	—	21,251	
Total general facilities	2,436,406	121,918	465	24,850	(232,986)	2,350,653	
Total supporting and general facilities	57,602,736	2,730,953	28,889	(1,470,328)	(1,664,006)	57,223,243	
Total fixed assets in service	177,607,440	5,258,816	64,728	(2,201,079)	(2,944,348)	177,785,557	
FACILITIES HELD FOR FUTURE USE	754,635	3,520	(1,011,805)	2,244,714	(325,864)	1,665,200	

CONSTRUCTION AND RETIREMENTS IN PROGRESS:	
Construction work.....	3,269,547
Retirements.....	3,269,547
Total construction and retirements in progress.....	3,269,547
RESERVE FOR EARLY RETIREMENT OF 25-CYCLE POWERPLANT	
Total fixed assets in service, construction and retirements in progress, facilities held for future use and reserve.....	184,459,939
DEFENSE FACILITIES AND SUSPENDED CONSTRUCTION PROJECTS:	
Defense facilities:	
Canal defense property.....	37,624,715
Navy reserve ship repair facilities.....	9,019,491
Total defense facilities.....	46,644,206
Suspended construction projects:	
3d set of locks.....	38,197,263
Isthmian sea level canal studies, 1947.....	4,622,738
Total suspended construction projects.....	42,819,941
Total defense facilities and suspended construction projects.....	89,464,147
Totals	273,924,086

¹ Current expenditures..... \$7,476,130
 Removal cost, plant retirements..... 88,380

² Distribution of depreciation:
 Canal operations (table 4)..... \$2,030,610
 Supporting services operations (table 5)..... 3,109,324
 Administrative and general expenses (table 6)..... 122,202

Total operations.....

³ The accompanying "Notes Pertaining to Financial Statements" are an integral part of this statement.

Less salvage credits from plant retirements..... 7,564,710
 Net..... 310,408

7,254,302

Table 9.—Comparative Statement of Financial Condition, June 30, 1958, and June 30, 1957

	<i>Assets</i>	<i>June 30, 1958</i>	<i>June 30, 1957</i>
CURRENT ASSETS:			
Fund balances with U.S. Treasury and cash	\$31, 354, 539	\$29, 563, 328	
Notes receivable	1, 069, 500	1, 069, 500	
Accounts receivable	3, 311, 545	3, 951, 913	
Inventories	7, 904, 791	7, 928, 134	
Other	201, 339	193, 325	
 Total current assets	 43, 841, 714	 42, 706, 200	
LONG-TERM NOTES RECEIVABLE		2, 139, 000	3, 208, 500
FIXED ASSETS		598, 198, 791	595, 959, 366
Less allowances for depreciation	185, 562, 286	184, 459, 939	
 Fixed assets, net	 412, 636, 505	 411, 499, 427	
DEFERRED CHARGES AND OTHER ASSETS		4, 044, 907	4, 148, 849
		 462, 662, 126	 461, 562, 976
 <i>Liabilities and equity</i>			
CURRENT LIABILITIES:			
Due U.S. Treasury	2, 391, 137	3, 675, 069	
Other accounts payable	3, 705, 091	3, 559, 064	
Accrued liabilities	9, 297, 106	8, 061, 388	
Other	660, 179	612, 828	
 Total current liabilities	 16, 053, 513	 15, 908, 349	
RESERVES:			
Periodic overhaul of canal locks	1, 448, 531	3, 204, 278	
Noncapital power conversion costs	4, 000, 000	-----	
 Total reserves	 5, 448, 531	 3, 204, 278	
EQUITY OF U.S. GOVERNMENT:			
Net direct investment	351, 861, 652	356, 885, 966	
Retained revenue	88, 548, 430	85, 564, 383	
Panama Canal bridge	750, 000	-----	
 Total equity	 441, 160, 082	 442, 450, 349	
		462, 662, 126	461, 562, 976

Table 10.—Comparative Statement of Revenue and Expenses, Fiscal Years Ended June 30, 1958 and 1957

	<i>Fiscal year ended June 30</i>	
	<i>1958</i>	<i>1957</i>
REVENUE:		
Tolls from commercial vessels-----	\$41, 843, 525	\$38, 513, 404
Tolls credits from U.S. Government vessels-----	990, 481	1, 140, 116
Other services to shipping-----	10, 054, 108	11, 120, 978
Sales of goods and services-----	30, 222, 495	35, 830, 557
	<hr/>	<hr/>
	83, 110, 609	86, 605, 055
OPERATING EXPENSES AND DEDUCTIONS:		
Payroll and related costs-----	38, 399, 717	37, 511, 021
Material and other-----	3, 498, 469	3, 233, 909
Cost of goods sold-----	13, 347, 951	17, 262, 958
Depreciation-----	5, 262, 336	5, 342, 265
Reimbursement of annuity payments to Republic of Panama-----	430, 000	430, 000
Net cost of Canal Zone Government-----	10, 737, 194	10, 135, 514
Interest paid to U.S. Treasury-----	8, 778, 560	8, 867, 932
	<hr/>	<hr/>
	80, 454, 227	82, 783, 599
NET REVENUE-----	2, 656, 382	3, 821, 456
	<hr/>	<hr/>

Table 11.—Statement of Changes in Equity of the U.S. Government, Fiscal Year Ended June 30, 1958

	<i>Net direct investment</i>	<i>Retained revenue</i>	<i>Panama Canal bridge</i>
EQUITY AT JULY 1, 1957-----	\$356, 885, 966	\$85, 564, 383	-----
Add:			
Net revenue for the year-----	-----	2, 656, 382	-----
Excess of market over book value of properties transferred to Republic of Panama under 1955 treaty:			
Panama Canal Company properties-----	-----	3, 955, 125	-----
Canal Zone Government properties-----	-----	372, 540	-----
Appropriation for preliminary plans of Panama Canal bridge-----	-----	-----	\$750, 000
	<hr/>	<hr/>	<hr/>
	356, 885, 966	92, 548, 430	750, 000
Deduct:			
Market value of company properties transferred to Republic of Panama under 1955 treaty-----	4, 820, 000	-----	-----
Provision for noncapital power conversion costs-----	-----	4, 000, 000	-----
Property transfers, other U.S. Government agencies, net-----	204, 314	-----	-----
	<hr/>	<hr/>	<hr/>
	5, 024, 314	4, 000, 000	-----
EQUITY AT JUNE 30, 1958-----	351, 861, 652	88, 548, 430	750, 000
	<hr/>	<hr/>	<hr/>

Table 12.—Ocean Traffic Through Panama Canal, Fiscal Years 1948 Through 1958

	Total traffic		Traffic assessed tolls on net tonnage basis		Traffic assessed tolls on displacement tonnage basis		
	Number of transits	Tolls	Tons of cargo	Number of transits	Panama Canal net tonnage	Number of transits	Displacement tonnage
<i>Commercial ocean traffic</i>							
1948	4,678	\$19,956,593	24,117,788	4,664	22,902,064	14	58,398
1949	4,793	20,641,230	25,305,155	4,771	23,473,236	22	110,584
1950	5,448	24,430,206	28,872,283	5,439	28,013,236	9	12,807
1951	5,593	23,906,082	30,073,022	5,572	27,180,425	21	54,639
1952	6,524	26,922,532	33,610,509	6,500	30,674,302	24	107,732
1953	7,410	31,917,515	36,095,349	7,392	36,678,636	18	77,628
1954	7,784	33,247,864	39,095,067	7,758	38,027,812	26	130,810
1955	7,997	33,849,477	40,646,301	7,953	38,567,769	44	136,97
1956	8,209	36,153,842	45,119,042	8,157	41,202,961	52	126,233
1957	8,579	38,444,128	49,702,200	8,540	43,628,210	39	155,056
1958	9,187	41,795,905	48,124,808	9,162	47,924,345	25	78,691
<i>Government ocean traffic</i>							
1948	508	1,755,134	1,520,569	305	1,551,293	203	857,077
1949	658	2,405,519	2,217,495	440	2,397,903	218	688,311
1950	443	1,918,785	1,429,283	355	2,095,270	88	281,542
1951	693	2,764,747	1,165,986	559	3,056,354	134	633,799
1952	774	3,383,900	3,237,311	659	3,665,302	115	521,625
1953	1,064	5,526,038	5,049,922	986	6,146,333	78	562,186
1954	800	3,862,015	2,708,380	699	4,254,839	101	570,506
1955	296	1,190,367	838,305	227	1,184,135	69	341,199
1956	266	1,215,883	1,150,121	219	1,286,841	47	226,813
1957	269	1,117,467	922,173	199	1,086,564	70	392,671
1958	279	972,110	791,310	224	1,020,267	55	219,938
<i>Total ocean traffic</i>							
1948	5,186	21,711,727	25,638,357	4,969	24,453,357	217	915,475
1949	5,451	22,946,749	27,522,653	5,211	25,871,139	240	798,895
1950	5,891	26,348,991	30,301,576	5,794	30,108,506	97	294,349
1951	6,286	26,670,829	31,239,008	6,131	30,236,779	155	688,438
1952	7,298	30,376,432	36,847,820	7,159	34,339,604	139	629,357
1953	8,474	37,443,553	41,145,271	8,378	42,824,969	96	639,824
1954	8,584	37,109,879	41,893,447	8,457	42,282,651	127	701,316
1955	8,293	35,039,844	41,484,606	8,180	39,751,904	113	478,186
1956	8,475	37,369,725	46,269,163	8,376	42,489,802	99	353,046
1957	8,848	39,561,595	50,624,373	8,739	44,714,774	109	547,726
1958	9,466	42,768,015	48,916,119	9,386	48,944,612	80	298,629

NOTE.—Tolls were not assessed against U.S. Government traffic prior to fiscal year 1952. Tolls indicated for such traffic for fiscal years 1948 through 1951 are statistical figures which show tolls value for this traffic at the prescribed rates.

Table 13.—Traffic by Months, Fiscal Years 1957 and 1958

	Number of transits		Panama Canal net tonnage		Tons of cargo		Tolls	
	1957-58	1956-57	1957-58	1956-57	1957-58	1956-57	1957-58	1956-57
July.....	788	669	4,223,721	3,478,317	4,441,267	3,871,143	\$3,668,461	\$3,053,909
August.....	812	653	4,129,989	3,274,098	4,334,306	3,576,284	3,598,726	2,888,019
September.....	771	646	4,042,303	3,259,743	3,934,700	3,558,799	3,503,564	2,861,467
October.....	813	699	4,236,814	3,510,842	4,304,833	3,877,761	3,679,870	3,083,296
November.....	779	654	4,056,520	3,258,887	3,994,320	3,743,298	3,522,149	2,876,098
December.....	774	751	4,038,677	3,879,894	4,057,864	4,607,944	3,520,572	3,419,669
January.....	744	701	3,872,180	3,567,745	3,735,448	4,252,657	3,376,306	3,161,163
February.....	700	673	3,541,049	3,412,139	3,420,104	3,896,981	3,103,608	3,032,647
March.....	810	808	4,150,335	4,085,860	4,055,216	4,812,784	3,627,699	3,602,541
April.....	734	767	3,837,402	3,899,870	3,863,386	4,397,018	3,363,321	3,429,625
May.....	752	783	4,022,827	4,038,927	4,072,316	4,585,965	3,526,528	3,551,340
June.....	710	775	3,772,528	3,961,888	3,911,049	4,521,566	3,305,101	3,484,354
Total.....	9,187	8,579	47,924,345	43,628,210	48,124,809	49,702,200	41,795,905	38,444,128
Average per month.....	766	715	3,993,695	3,635,684	4,010,401	4,141,850	3,482,992	3,203,677

NOTE.—The above includes only commercial vessels of 300 tons and over, Panama Canal measurement, or of 500 displacement tons and over on vessels paying tolls on displacement tonnage basis.

Table 14.—Canal Traffic ¹ by Nationality of Vessels

Not nationality	Number of transits	Measured tonnage			Tolls	Tons of cargo
		Panama Canal net	Gross	Net		
Argentine.....	1	5,341	7,625	4,583	\$4,807	9,055
Belgian.....	4	13,958	17,729	13,209	11,306	13,222
Brazilian.....	2	1,060	3,376	763		
British.....	1,203	7,454,501	9,841,461	5,717,737	6,591,490	7,370,112
Chilean.....	89	490,976	718,223	414,956	440,914	507,441
Chinese.....	54	245,415	340,085	208,918	218,469	406,575
Colombian.....	231	679,716	823,833	452,363	608,817	330,448
Costa Rican.....	8	27,893	39,129	23,863	25,104	51,343
Cuban.....	2	(2)	(2)	(2)	1,890	
Danish.....	356	1,615,527	1,858,702	1,036,286	1,413,402	1,112,939
Dominican Republic.....	1	838	2,323	1,187	603	
Ecuadorian.....	38	113,285	144,399	80,022	100,897	46,511
Finnish.....	30	125,314	134,703	72,195	111,801	125,884
French.....	85	527,589	654,901	373,460	475,106	443,401
German.....	837	3,370,445	3,810,702	1,859,843	2,915,471	2,537,505
Greek.....	116	630,088	851,786	494,760	549,570	1,051,394
Honduran.....	278	587,920	932,826	534,070	486,483	298,564
Irish.....	1	5,994	6,218	3,303	5,395	8,558
Italian.....	191	1,139,772	1,470,810	874,988	1,004,213	1,109,176
Japanese.....	693	3,929,041	5,410,417	3,161,690	3,510,096	4,629,438
Korean (South).....	2	7,988	11,545	7,159	6,228	4,806
Liberian.....	898	5,633,036	7,705,285	4,602,586	4,744,043	7,802,371
Mexican.....	1	6,985	9,313	5,364	6,286	12,149
Netherlands.....	206	1,047,290	1,523,579	873,029	911,911	899,738
Nicaraguan.....	81	201,178	215,788	108,222	180,620	141,211
Norwegian.....	956	4,845,380	6,128,804	3,590,818	4,160,761	4,456,990
Panamanian.....	472	2,011,759	2,695,175	1,616,712	1,674,720	2,152,332
Peruvian.....	54	154,083	214,400	127,728	140,387	226,350
Philippines.....	23	130,580	149,283	88,744	117,522	122,770
Spanish.....	43	181,016	247,735	164,559	153,319	180,709
Soviet (U.S.S.R.).....	3	15,198	18,697	10,189	13,678	21,850
Swedish.....	200	1,024,867	1,246,222	739,039	906,914	748,142
Switzerland.....	3	18,675	17,181	9,620	16,808	28,779
United States.....	2,023	11,672,797	15,313,156	9,034,419	10,278,951	11,267,630
Venezuelan.....	2	8,840	17,382	10,986	7,160	7,416

¹ Includes only commercial vessels of 300 net tons and over, Panama Canal measurement, or of 500 displacement tons and over on vessels paying tolls on displacement basis (dredges, warships, etc.).

² Displacement tonnage.

NOTE.—In canal traffic statistics, foreign naval vessels such as transports, supply ships, tankers, etc., with a measurement of 300 net tons (Panama Canal measurement) and over, and vessels of war, dredges, etc., with a displacement of 500 tons and over are classified as oceangoing commercial vessels. Statistics on these vessels, except such as pertain to displacement tonnage, have been included in the traffic summaries shown in the preceding table. The following table presents by nationality statistics on the 25 vessels which transited the canal during the fiscal year 1958 and paid tolls on displacement tonnage.

Nationality	Type	Number of transits	Displacement tonnage	Tolls
British.....	Naval.....	7	20,247	\$10,124
Chilean.....	do.....	2	23,495	11,748
Cuban.....	Frigate.....	2	3,780	1,890
French.....	Naval.....	1	2,421	1,210
Liberian.....	Dredge.....	1	1,900	950
Netherlands.....	Naval.....	4	8,962	4,481
Peruvian.....	do.....	3	4,852	2,426
Spanish.....	do.....	4	8,950	4,475
Swedish.....	do.....	1	4,084	2,042
Total.....		25	78,691	39,346

Table 15.—Classification of Canal Traffic¹ by Type of Vessel—Fiscal Year 1958

CARGO AND CARGO/PASSENGER SHIPS:	Vessels of U.S. registry						Vessels of foreign registry			Total traffic		
	Atlantic to Pacific		Pacific to Atlantic		Total		Atlantic to Pacific		Pacific to Atlantic		Total	
	Total	Pacific to Atlantic	Total	Pacific to Atlantic	Total	Pacific to Atlantic	Total	Pacific to Atlantic	Total	Pacific to Atlantic	Total	
Tank ships laden:												
Number of transits	67	49	116	340	340	39	407	88	88	88	495	
Panama Canal net tonnage	549,150	438,231	987,331	2,632,396	240,333	2,872,729	3,181,646	678,564	3,860,110	3,474,089		
Tolls	\$394,235	\$394,408	\$888,643	\$2,359,156	\$216,300	\$2,585,456	\$2,863,391	\$810,708	\$3,474,089			
Cargo (long tons):	959,851	658,951	1,618,802	4,953,557	384,086	5,337,623	5,913,408	1,043,017	6,956,425			
Tank ships ballast:												
Number of transits												
Panama Canal net tonnage	88,415	245,870	31	39	23	333	356	31	364	386		
Tolls	\$63,659	\$177,036	\$240,685	\$163,409	\$1,722,331	\$2,885,740	\$251,824	\$2,968,201	\$3,220,026			
Ore ships laden:												
Number of transits												
Panama Canal net tonnage												
Tolls												
Cargo (long tons)												
Ore ships, ballast:												
Number of transits												
Panama Canal net tonnage												
Tolls												
Passenger ships, laden: ²												
Number of transits												
Panama Canal net tonnage												
Tolls												
Cargo (long tons): ³												
Passenger ships, ballast: ³												
Number of transits												
Panama Canal net tonnage												
Tolls												
General cargo ships, laden: ³												
Number of transits												
Panama Canal net tonnage												
Tolls												
Cargo (long tons): ³												
General cargo ships, ballast: ³												
Number of transits												
Panama Canal net tonnage												
Tolls												

See footnotes at end of table.

1

CARGO AND CARGO/PASSENGER SHIPS:

Tank ships laden:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons)

Tolls

Ore ships, laden:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons)

Tolls

Passenger ships, laden:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, ballast:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, laden:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, ballast:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, laden:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, ballast:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast:

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

General cargo ships, laden:³

Number of transits

Panama Canal net tonnage

Tolls

Cargo (long tons):³

Tolls

Passenger ships, ballast

Table 15.—Classification of Canal Traffic¹ by Type of Vessel—Fiscal Year 1958—Continued

OWNER TYPE SHIPS:	Vessels of U.S. registry						Vessels of foreign registry						Total traffic		
	Atlantic to Pacific			Pacific to Atlantic			Atlantic to Pacific			Pacific to Atlantic			Total		
	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
Naval vessels:															
Number of transits															
Displacement tonnage															
Tolls (long tons)															
Cargo ships, yachts, etc.:															
Number of transits															
Panama Canal net tonnage															
Tolls															
Cargo (long tons)															
Cargo (long tons) (continued)															
SUMMARY:															
Total cargo and cargo/passenger ships, laden:															
Number of transits															
Panama Canal net tonnage															
Tolls															
Cargo (long tons)															
Total cargo and cargo/passenger ships, ballast:															
Number of transits															
Panama Canal net tonnage															
Tolls															
Total other types ships:															
Number of transits															
Panama Canal net tonnage															
Displacement tonnage															
Tolls															
Grand total ships:															
Number of transits															
Panama Canal net tonnage															
Displacement tonnage															
Tolls															
Cargo (long tons)															
Cargo (long tons) (continued)															
Grand total ships:															
Number of transits															
Panama Canal net tonnage															
Displacement tonnage															
Tolls															
Cargo (long tons)															
Cargo (long tons) (continued)															

¹ Includes only commercial vessels of 300 net tons and over (Panama Canal measurement) for vessels paying tolls on net tonnage basis, or of 500 displacement tons and over for vessels paying on displacement tonnage.

² Vessel certificated for more than 12 passengers.

³ Vessel certificated for 12 passengers or less, or without passenger accommodations.

Table 16.—Laden and Ballast Traffic by Nationality of Vessels, Fiscal Year 1958

Nationality	Laden			Ballast		
	Number of transits	Panama Canal net tonnage	Tolls	Number of transits	Panama Canal net tonnage	Tolls
Argentine	1	5,341	\$4,807	2	6,979	\$5,025
Belgian	2	6,979	6,281	2	1,060	763
Brazilian						
British	1,052	6,745,143	6,070,629	144	709,358	510,738
Chilean	78	420,352	378,317	9	70,624	50,849
Chinese	53	232,058	208,852	1	13,357	9,617
Colombian	222	663,450	597,105	9	16,266	11,712
Costa Rican	8	27,893	25,104			
Danish	297	1,390,127	1,251,114	59	225,400	162,288
Dominican Republic				1	838	603
Ecuadorian	36	107,399	96,659	2	5,886	4,238
Finnish	29	119,859	107,873	1	5,455	3,928
French	83	522,394	470,155	1	5,195	3,740
German	656	2,715,282	2,443,754	181	655,163	471,717
Greek	97	532,814	479,533	19	97,274	70,037
Honduran	156	351,004	315,904	122	236,916	170,580
Irish	1	5,994	5,395			
Italian	169	1,019,875	917,887	22	119,897	86,326
Japanese	659	3,784,369	3,405,932	34	144,672	104,164
Korean (South)	1	2,648	2,383	1	5,340	3,845
Liberian	637	3,818,373	3,436,536	260	1,814,663	1,306,557
Mexican	1	6,985	6,286			
Netherlands	160	852,119	766,907	42	195,171	140,523
Nicaraguan	80	198,733	178,860	1	2,445	1,760
Norwegian	726	3,733,819	3,360,437	230	1,111,561	800,324
Panamanian	306	1,256,964	1,131,268	166	754,795	543,452
Peruvian	48	150,117	135,105	3	3,966	2,856
Philippines	23	130,580	117,522			
Spanish	22	102,848	92,563	17	78,168	56,281
Soviet (U.S.S.R.)	3	15,198	13,678			
Swedish	177	927,600	834,840	22	97,267	70,032
Switzerland	3	18,675	16,807			
United States	1,759	10,414,095	9,372,685	264	1,258,702	906,266
Venezuela	1	4,420	3,978	1	4,420	3,182
Total:						
Fiscal year 1958	7,546	40,283,507	36,255,156	1,616	7,640,838	5,501,403
Fiscal year 1957	7,332	38,634,942	34,771,448	1,208	4,993,268	3,695,153
Fiscal year 1956	6,904	35,692,184	32,122,966	1,253	5,510,777	3,967,759

NOTE.—Above table involves only commercial vessels of 300 net tons or over, Panama Canal measurement.

Table 17.—Frequency of Transits¹ of

[Number of vessels making

Nationality	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Argentine	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Belgium	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Brazilian	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
British	198	120	72	41	19	13	8	1	1	1	1	—	—	—	1	—	—	1	—	—	
Chilean	4	2	—	1	—	2	3	—	1	—	1	2	—	—	—	—	—	—	—	—	
Chinese	6	3	—	1	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Colombian	5	2	1	—	—	1	—	1	1	—	1	—	3	1	1	1	2	2	—	—	
Costa Rican	4	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Cuban	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Danish	18	20	9	6	8	3	2	—	2	3	—	4	—	—	—	—	—	1	2	1	
Dominican Republic	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ecuadorian	1	2	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	
Finnish	3	2	1	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
French	4	8	6	1	2	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	
German	21	51	12	17	5	10	10	9	—	1	—	—	—	1	—	2	2	5	1	—	
Greek	28	16	7	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Honduran	5	3	2	3	—	3	2	2	—	3	—	1	1	1	—	2	—	1	—	—	
Irish	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Italian	27	14	7	3	2	4	1	2	4	1	—	—	—	—	—	—	—	—	—	—	
Japanese	57	47	30	33	18	31	4	2	—	—	—	—	—	—	—	—	—	—	—	—	
Korean (South)	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Liberian	119	80	26	21	4	7	3	3	5	2	1	1	—	1	2	—	6	1	—	—	
Mexican	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Netherlands	29	16	5	11	1	3	3	1	—	1	—	2	—	—	—	—	—	—	—	—	
Nicaraguan	—	—	—	—	—	—	—	—	—	—	—	—	—	1	3	—	1	6	—	—	
Norwegian	67	67	29	18	14	13	9	11	2	2	1	1	—	3	1	—	1	6	—	—	
Panamanian	38	30	10	6	1	5	—	1	1	—	—	—	2	—	1	—	—	—	—	—	
Peruvian	3	3	1	2	2	1	—	—	2	—	—	—	—	—	—	—	—	—	—	—	
Philippine	—	—	—	3	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Spanish	6	7	—	3	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Soviet (U.S.S.R.)	3	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Swedish	14	14	—	9	3	7	7	—	—	—	—	—	—	—	—	1	—	—	—	—	
Switzerland	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
United States	71	63	47	30	27	27	12	18	5	15	10	2	3	8	2	3	6	3	2	—	
Venezuelan	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total 1958	742	577	265	213	111	140	67	51	25	33	15	14	4	16	7	16	10	24	4	8	1
Total 1957	873	599	223	207	136	128	47	39	26	40	13	16	8	17	4	10	8	7	2	11	4
Total 1956	657	526	263	186	124	124	41	39	25	28	19	19	4	18	4	4	7	13	4	4	6

¹ Includes only commercial vessels of 300 net tons and over, Panama Canal measurement, or of 500 displacement tons and over on vessels paying tolls on displacement basis (dredges, warships, etc.).

Vessels Through Panama Canal

indicated number of transits]

22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	38	39	40	41	42	43	45	48	49	50	52	54	Total ships	Total transits	Transits per ship
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1.00	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4	2.00	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	1.00	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	480	1,203	2.51	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	59	5.56	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	54	3.38	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	231	10.04	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	8	1.33	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	2.00	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79	356	4.50	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1.00	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	38	6.33	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	30	3.00	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	85	3.27	
1	1	1	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	154	837	5.44	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	116	2.11	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	31	278	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1.00	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	191	2.94	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	222	693	3.12	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	1.00	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	285	898	3.15	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1.00	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72	206	2.86	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	81	13.50	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	247	956	3.87	
1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	103	472	4.58	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	54	3.86	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	23	4.60	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	43	2.39	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	1.00	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	200	3.64	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	1.00	
2	1	2	2	1	-	-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	365	2,023	5.54	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	1.00	

5 2 6 4 3 1 - 2 1 1 3 2 1 - 1 2 - 1 2 1 - 1 2 - 1 1 - 1 1 - 1 1 - 1 1 - 2,378 9,187 3.86
 6 1 - 2 2 1 1 1 2 - 1 2 - 1 2 1 - 1 2 - 1 1 - 1 1 - 1 1 - 1 1 - 2,444 8,579 3.51
 7 3 5 4 2 - 1 - 1 1 - 3 3 - 1 1 - 1 1 - 1 1 - 1 1 - 2,150 8,209 3.82

Table 18.—Segregation of Transits¹ by Registered Gross Tonnage—Fiscal Year 1958

Nationality	Under 2,000		2,000 to 3,999		4,000 to 6,999		6,000 to 7,999		8,000 to 9,999		10,000 to 11,999		12,000 to 13,999		14,000 to 15,999		16,000 to 17,999		18,000 and over		Total ²		Registered gross tonnage		Average gross ton- nage per vessel	
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Argentine	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bolivian	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Brazilian	83	34	183	—	338	—	292	—	125	47	19	44	—	31	1,196	9,841	1,461	7,729	4,322	11,540	—	—	—	—	—	
British	1	14	1	6	6	51	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chilean	—	20	—	—	—	32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chinese	59	85	87	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Colombian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Costa Rican	3	103	119	63	44	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Danish	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dominican Republic	—	35	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ecuadorian	—	10	19	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Finnish	—	—	—	18	35	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
French	—	501	159	57	39	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
German	33	—	—	3	94	15	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greek	—	90	98	58	23	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Honduran	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Irish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Italian	5	6	2	93	78	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Japanese	16	—	8	380	279	9	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Korean (South)	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Liberian	96	7	7	362	80	240	48	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Mexican	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Netherlands	22	31	6	59	29	30	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nicaraguan	—	81	—	157	164	201	105	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Norwegian	75	221	—	119	8	43	4	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Panamanian	188	40	24	119	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Persian	2	36	7	6	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Philippine	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Soviet (U.S.S.R.)	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spanish	6	—	9	20	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Swedish	—	38	28	119	6	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Switzerland	—	—	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Turkish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
United States	51	2	193	1,005	624	109	23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Venezuelan	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Yugoslav	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total (1958)	759	1,369	1,102	3,002	1,771	700	166	42	—	157	94	9,162	62,582	813	6,831	—	—	—	—	—	—	—	—	—	6,666	
Percent of total	8.3	14.9	12.0	32.8	19.3	7.7	1.8	0.5	—	1.7	1.0	100.0	—	—	—	—	—	—	—	—	—	—	—	—	—	

¹ Includes only commercial vessels of 300 net tons and over, Panama Canal measurement.

² 25 vessels paying tolls on displacement tonnage are not included.

Table 19.—Principal Commodities Shipped Through Canal

Commodity	[Thousands of long tons]			
	1958	1957	1956	1955
ATLANTIC TO PACIFIC				
Petroleum and products ¹	5,964	5,242	5,310	4,306
Coal and coke	3,849	3,805	2,996	3,274
Iron and steel manufactures	1,922	2,835	2,131	1,792
Phosphates	1,257	1,523	1,257	1,043
Soybeans	814	698	746	568
Sugar	654	896	787	520
Ores, various	561	612	317	187
Metal, scrap	532	1,497	498	23
Chemicals, unclassified	482	316	271	233
Cotton, raw	354	402	212	226
Paper and paper products	353	463	433	377
Metals, various	341	751	122	113
Corn	338	81	175	170
Sulfur	336	370	469	463
Machinery	334	342	301	285
Wheat	307	267	218	216
Automobiles and parts	283	304	260	268
Ammonium compounds	247	322	464	295
Flour, wheat	185	188	90	68
Fertilizers, unclassified	182	176	187	191
Canned food products	179	193	170	190
Tinplate	166	295	244	213
Asphalt	166	122	119	105
Cement	158	226	289	300
Liquors and wines	103	94	90	90
Potash	97	248	112	40
Glass and glassware	89	81	94	67
Electrical apparatus	83	77	83	75
Rice	81	273	164	28
Groceries, miscellaneous	76	58	53	59
Textiles	71	80	78	90
Agricultural implements	71	69	73	84
Asbestos	68	72	59	59
Coffee	67	71	80	34
Soda and sodium compounds	65	120	70	60
Salt	65	52	50	104
Slag	61	52	68	66
Woodpulp	58	69	70	64
Rubber, manufactures	53	51	44	26
Resin	51	56	46	42
Vegetable oils	46	53	37	35
Tobacco and manufactures	45	49	57	49
Railroad materials	42	127	100	61
Creosote	33	39	34	35
Pharmaceutical products	33	30	33	34
Grains, other and unclassified	32	47	53	115
Lumber	31	29	24	36
Wax, paraffin	30	29	44	34
Carbon black	27	35	26	27
Paints and varnishes	27	27	29	29
Clay	26	37	38	27
Floor coverings	25	22	29	30
Food in refrigeration ²	25	14	19	14
Bricks and tile	22	34	32	30
Confectionery	20	16	19	20
Soap and soap products	20	14	16	12
Tallow	16	21	34	28
All others	1,220	1,358	1,362	1,389
Total, Atlantic to Pacific	22,843	25,430	21,286	18,419

¹ Excludes asphalt.² Excludes fresh fruit.

Table 19.—Principal Commodities Shipped Through Canal—Continued

[Thousands of long tons]

Commodity	Fiscal year			
	1955	1956	1957	1958
PACIFIC TO ATLANTIC				
Ores, various	7,560	6,401	5,137	4,087
Lumber	3,323	2,900	3,549	3,747
Wheat	1,986	2,688	1,478	1,387
Canned food products	1,286	1,311	1,301	1,221
Bananas	1,082	870	936	939
Sugar	1,068	1,446	1,425	1,281
Nitrate of soda	1,046	867	1,167	1,271
Metals, various	902	935	742	789
Petroleum and products ¹	746	752	1,875	1,981
Barley	711	444	1,083	387
Food in refrigeration ²	630	800	618	551
Coffee	308	289	315	280
Woodpulp	281	237	142	349
Cotton, raw	260	262	290	236
Fruit, fresh (excluding bananas)	233	213	216	160
Oilseeds (including oilseed cake and meal)	225	173	156	193
Wool	224	315	234	218
Copra	211	302	258	245
Chemicals, unclassified	164	132	110	105
Fruit, dried	163	163	171	156
Iron and steel manufactures	153	172	288	222
Borax	148	159	157	150
Paper and paper products	130	96	91	89
Rice	126	119	102	93
Oils, vegetable	119	134	106	202
Rubber, crude	108	118	104	122
Metal, scrap	107	81	40	103
Whale oil	94	74	48	43
Fertilizers, unclassified	93	56	45	22
Beans, edible	91	88	88	102
Grains, other and unclassified	82	16	39	37
Phosphates	81	111	108	152
Seeds, except oilseeds	73	59	35	56
Textiles	70	85	81	50
Porcelainware	69	69	55	46
Coal	69	1	—	1
Wines	68	40	62	65
Molasses	59	57	27	67
Flour, wheat	57	81	102	66
Oats	53	11	28	64
Skins and hides	52	57	48	47
Machinery	45	48	41	54
Tallow	44	57	49	33
Peas, dry	42	59	24	44
Groceries, miscellaneous	36	29	22	36
Vegetables, dry	33	27	28	24
Cocoa and cacao beans	28	27	22	30
Rubber manufactures	26	5	7	2
Hemp, unmanufactured	20	26	20	17
All others	697	810	763	605
Total, Pacific to Atlantic	25,282	24,272	23,833	22,227

¹ Excludes asphalt.² Excludes fresh fruit.

**Table 20.—Origin and Destination of Cargo through the Panama Canal from Atlantic to Pacific during Fiscal Year 1958
Segregated by Countries in Principal Trade Areas**

	To west coast North America						To east coast South America					
	Central America/ Mexico	Canada	Balboa, C.Z. ¹	Hawaiian Islands	Total	Chile	Colombia	Ecuador	Peru	South America (other) ²	Total	
East coast North America:												
United States:												
North Atlantic ports	1,230,273	5,865	66,368	777	1,408,728	317,703	106,410	44,050	20,003	3,450	674,056	
South Atlantic ports	19,307	24,343	115,334	15,298	2,988	23,223	7,871	11,246	3,786	—	23,484	
Gulf ports	646,688	—	—	—	50,765	852,428	196,684	122,884	39,655	30,675	672,175	
United States (other) ²	—	—	—	—	11,175	—	193	150	1,042	523	1,908	
Total, United States	1,896,268	30,208	182,630	16,075	170,373	2,295,554	522,258	240,733	84,904	509,489	14,249	
Canada	14,232	28,087	1,740	—	—	42,319	—	—	5,050	335	1,388	
Central America/Mexico	127	19	1,251	—	—	1,541	—	—	270	150	49	
Cristobal, C.Z. ¹	5278	12	517,299	337,504	92	1,736,819	438,278	52,659	20,731	1,607	—	
West Indies	582,770	299,154	—	—	—	—	—	—	18,035	—	380	
Total, North America	2,493,675	357,480	702,920	353,579	170,465	4,078,119	960,536	298,912	107,736	528,961	14,642	
Europe:												
British Isles:												
United Kingdom	131,996	168,956	1,678	141	15	302,786	32,751	8,915	11,823	52,768	521	106,778
Belgium	126,795	27,698	116,643	1,077	8,877	280,080	57,539	45,439	24,833	57,579	4,620	205,010
Denmark	12,338	4,253	554	—	24	17,169	2,227	1,621	1,081	4,182	86	9,197
France	22,403	7,505	1,836	—	—	17	31,761	2,355	865	1,178	6,555	1,060
Italy	35,188	11,711	3,921	—	—	52	50,872	17,519	1,254	9,424	686	29,829
Netherlands	56,447	7,519	45,960	—	—	109,926	8,416	24,375	4,820	35,428	179	73,216
Norway	43,905	762	84	—	1,227	45,978	331	1,572	1,635	2,766	30	6,334
Poland	—	—	4,372	—	—	4,372	—	—	—	—	—	—
Spain-Portugal	12,614	499	1,244	—	—	13,257	25,008	49	191	1,073	—	26,322
Sweden	17,811	1,124	1,615	—	—	76	20,626	14,565	5,400	4,184	32,209	1,809
West Germany	85,570	10,453	112,088	1	1,662	210,374	44,986	39,986	44,461	52,233	4,496	185,288
Europe (other) ²	88,043	16,064	13,410	31	272	117,820	13,020	8,015	3,717	18,607	6,477	49,836
Total, Europe	632,010	256,544	303,005	1,250	12,222	1,205,031	217,823	137,551	98,869	287,822	20,065	762,130
East coast South America:												
Argentina	15,971	1,311	—	—	—	17,282	—	—	6	—	—	6
Brazil	34,320	2,195	—	—	—	36,515	—	—	—	—	—	—
British Guiana	6,430	—	492	—	—	6,922	90	800	—	—	—	1,801
Colombia	17,639	—	3,422	7,108	—	28,369	143,030	255,152	244	139,496	36	537,927
Netherland Guiana	19,634	—	—	—	—	19,634	—	—	—	—	—	36
Venezuela	—	—	127,730	72,574	—	1,816,702	341,309	20,409	29,150	17,029	29	407,926
South America (other) ²	1,616,398	691	—	—	—	691	—	—	—	760	—	760
Total, South America	1,711,283	3,506	131,644	79,682	—	1,926,115	484,419	276,421	29,400	158,182	34	948,456
Asia-Africa	103,684	12,500	—	—	—	64,184	—	—	—	—	—	—
Africa	61,863	2,355	—	—	—	64,184	—	—	—	—	—	—
Grand total	5,002,515	692,386	1,137,669	4,980	1,902	0,800	7,389,667	1,678,778	236,005	974,905	34,744	3,637,373
Percent of Pacific-bound cargo	21,899	2,768	—	—	—	32,349	7,349	3,121	1,033	4,298	0,152	15,923

See footnotes at end of table.

Table 20.—Origin and Destination of Cargo through the Panama Canal from Atlantic to Pacific during Fiscal Year 1958 Segregated by Countries in Principal Trade Areas—Continued

	To Oceania					
	Australia	British Oceania	French Oceania	New Zealand	Oceania (other) ²	Total
East coast North America:						
United States:						
North Atlantic ports	100,559	-----	2,466	31,832	15,364	150,431
South Atlantic ports	21,149	-----	-----	2,779	-----	23,928
Gulf ports	270,537	600	3,542	108,148	5,172	387,989
United States (other) ²	7,801	219	-----	810	177	9,007
Total, United States	400,046	600	6,227	143,573	20,913	571,365
Canada	73,377	-----	-----	26,382	-----	98,739
Central America/Mexico	36,732	-----	-----	11,005	-----	47,737
Cristobal, C.Z.	317,464	49,307	617	215,021	87	296,486
West Indies	-----	-----	-----	-----	-----	-----
Total, North America	547,609	49,907	6,844	391,967	21,000	1,017,327
Europe:						
British Isles	3,176	68,272	-----	728,129	9,597	809,174
Belgium	-----	1,385	-----	30,304	22	61,311
Denmark	-----	-----	-----	310	-----	310
France	1,841	-----	41,636	25	-----	43,502
Italy	-----	-----	-----	1,547	-----	1,547
Netherlands	1,272	770	-----	18,600	-----	20,632
Norway	-----	-----	-----	7,721	-----	7,721
Poland	-----	-----	-----	685	-----	685
Spain-Portugal	-----	-----	-----	13,590	-----	13,590
Sweden	-----	101	-----	29,030	-----	28,131
West Germany	-----	-----	-----	9,436	-----	9,436
Europe (other) ²	-----	-----	-----	-----	-----	-----
Total, Europe	6,289	70,528	41,636	808,977	9,619	997,049
East coast South America:						
Argentina	-----	-----	-----	-----	-----	-----
Brazil	3,424	-----	-----	-----	-----	3,424
British Guiana	16,352	-----	-----	-----	-----	16,352
Colombia	-----	-----	-----	-----	-----	-----
Netherland Guiana	-----	-----	-----	-----	-----	-----
Venezuela	93,529	-----	-----	-----	-----	93,529
South America (other) ²	-----	-----	-----	-----	-----	-----
Total, South America	113,305	-----	-----	-----	-----	113,305
Asia:						
Africa	-----	-----	-----	-----	-----	-----
Grand total	667,203	120,435	48,480	1,260,944	30,619	2,127,681
Percent of Pacific-bound cargo	2,921	0,527	0,212	5,520	0,134	9,314

To Asia										Percent of total Pacific- bound cargo
Philippines										Grand total
Hong Kong										(Other) ²
Indonesia	Japan	Korea	Thailand	South	Asia	Total	Total	Total	Total	Grand total
East Indies	Hong Kong	Indonesia	Japan	Philippines	Korea	Thailand	(Other) ²	Total	Other	7,249,577
United States:										31,736
North Atlantic ports	19,629	27,300	69,775	37,409	4,292	760	29,710	189,000	37,600	7,249,577
South Atlantic ports	462	3,160	2,859	2,111	52,327	22,287	8,890	3,026	693	118,964
Gulf ports	32,865	145,744	39,962	50,040	20,156	2,436,342	142,188	445,879	8,945	5,290,787
United States (other) ¹	3	1,181	491	197	317	9,343	5,107	5,688	204	6,507
Total, United States	52,959	229,385	71,175	122,316	59,993	6,790,972	402,898	649,457	49,775	92,974
Canada	1,588	717	1,854	1,535	309	170,321	6,221	1,438	5,558	8,521,904
Central America/Mexico						1,943			186,541	12,760,456
Cristobal, C.Z.						331			5,913	334,385
West Indies						536,205	4,381	5,000		56,014
Total, North America	55,607	230,358	78,622	142,052	60,302	7,489,772	413,600	654,457	21,912	3,679
Europe:									500,708	13,016
British Isles						665				13,821
Denmark										
France										
Italy										
Netherlands										
Norway										
Poland										
Spain-Portugal										
Sweden										
West Germany										
Europe (other) ²										
Total, Europe	2	23	1,581			106,510	2,846	19,003		144
East coast South America:										
Argentina										
Brazil										
British Guiana										
Colombia										
Netherland Guiana										
Venezuela										
South America (other) ²										
Total, South America										
Asia										
Africa										
Grand total	55,646	230,381	80,293	142,052	60,302	7,831,164	426,826	678,282	64,166	119,558
Percent of Pacific-bound cargo	0.244	1.009	0.351	0.622	0.264	1.867	34,282	1.867	2,971	0.523
Percent of Pacific-bound cargo										100.000

¹ Includes both local and transshipped cargo.
² Also includes cargo not routed to permit segregation between definite countries.

Table 21.—Origin and Destination of Cargo Through the Panama Canal from Pacific to Atlantic during Fiscal Year 1953
Segregated by Countries by Principal Trade Areas

	To United States						To other North America					
	North Atlantic ports	South Atlantic ports	Gulf ports	United States (other) ²	Total	Canada	Central America	Cristobal, Mexico	West Indies	C.7.1	Total North America	
West coast North America:												
United States:	2,442,440	54,923	184,707	88,061	2,770,131	16,630	9,868	953	387,851	3,221,133		
Canada	436,116	5,000	32,739	9,339	483,194	13,639	45	925	109,567	607,370		
Balboa, Canal Zone	673	1	598	—	1,272	—	—	46	3,029	4,347		
Central America/Mexico	385,047	23,589	81,381	4,445	495,013	6,198	3,384	21,987	14,782	541,364		
Hawaiian Islands	261,278	14,806	166,092	12,719	454,805	9,115	—	88	435	464,533		
Total, North America	3,525,554	98,319	466,067	114,565	4,204,504	45,582	13,297	59,999	515,684	4,839,047		
West coast South America:												
Chile	3,458,762	183,948	385,577	96	4,028,383	6	12,103	4,103	23,800	4,068,395		
Colombia	131,512	10,587	37,757	2,838	182,694	118	164	858	238	228		
Ecuador	226,492	5,456	283,810	6,356	522,324	700	13	804	382	524,223		
Peru	2,182,285	5,377	365,285	6	2,552,936	—	3	739	2,242	2,555,940		
South America (other) ²	747	—	4,920	27	5,694	—	—	233	5,733	11,700		
Total, South America	5,999,798	205,368	1,077,382	9,503	7,292,051	824	12,288	6,757	32,415	7,344,330		
Oceania:												
Australia	133,258	13,964	12,576	16,647	176,445	149,802	262	1,558	12,201	340,328		
British Oceania	28,453	—	—	—	28,453	—	—	—	5	28,453		
French Oceania	67,438	—	—	—	67,438	—	—	—	78	67,592		
New Zealand	75,292	2,520	382	—	78,194	13,558	10	777	20,777	113,316		
Oceania (other) ²	608	—	—	—	608	353	—	—	—	961		
Total, Oceania	305,049	16,484	12,938	16,647	351,138	163,713	272	2,418	33,119	550,660		
Asia:												
East Indies	58,348	590	40,312	—	99,250	—	216	—	7,649	107,115		
China	—	—	388	—	388	—	—	—	—	388		
Hong Kong	20,543	—	263	275	11	21,092	—	7,942	1,086	30,120		
Indochina	2,397	—	—	—	2,520	—	—	—	—	2,520		
Indonesia	11,910	465	—	123	—	20,796	—	—	—	20,796		
India	4,197	—	—	8,421	—	5,204	—	197	—	5,414		
Japan	420,594	10,606	1,007	2,209	499,344	366	36	12,198	20,945	532,889		
Philippine Islands	977,220	11,540	98,177	22,525	1,09,462	—	—	3,693	893	1,114,048		
Asia (other) ²	70,281	1,089	1,753	497	73,620	—	—	5,335	4,126	83,081		
Total, Asia	1,565,490	24,553	216,391	25,242	1,831,676	366	449	29,168	34,712	1,896,371		
Antarctica	8,227	—	—	—	—	8,227	—	—	—	—	8,227	
Grand total	11,404,118	344,724	1,772,798	165,957	13,687,597	210,485	26,301	98,342	615,910	14,638,655		
Percent of Atlantic-bound cargo	45,109	1,364	7,012	0,656	34,141	0,833	0,104	0,389	2,436	57,903		

To Europe															
	British Isles	Belgium	Denmark	France	Italy	Irish Republic	Netherlands	Norway	Poland	Portugal	Spain	Sweden	Germany	West Germany (West) ^a	Europe Total
West coast North America:															
United States	229,292	201,216	46,690	112,272	107,797	17,742	337,003	29,960	16,983	7,468	53,217	242,626	132,635	1,534,901	
Canada	2,173,767	179,652	1,738	53,981	153,204	5,065	401,752	63,284	5,245	1,057	92	286,991	263,632	3,591,530	
Balboa, Canal Zone ¹															
Central America/Mexico															
Hawaiian Islands															
Total, North America	2,436,120	399,994	48,509	170,170	264,083	22,841	775,581	95,233	22,228	8,525	58,128	638,256	406,144	5,345,812	
West coast South America:															
Chile	178,246	44,927	16,644	108,625	63,972	156,021	4	2,800	...	201,023	45,867	333,214	79,810	1,228,353	
Colombia	65	3,833	147	9,479	704	...	...	...	...	1,496	6,476	14,118	39,307	39,485
Ecuador															
Peru	125,251	90,614	705	60,568	5,357	11,968	1,537	640	1,841	2,738	176,839	6,505	313,533		
South America (other) ²	223,526	60,568	9,424	76,884	5,733	9	474,312	1,014	307	9,019	428,621	11,555	1,302,472		
Total, South America	438,773	201,013	27,002	196,214	78,299	9	650,974	2,555	640	204,684	64,437	964,070	103,565	2,932,235	
Oceania:															
Australia	63,187	5,709	1,814	...	...	...	...	...	75	...	...	1,223	...	72,008
British Oceania	184,181	...	52,897	9	...	...	...	...	...	...	4,758	17,725	206,664	
French Oceania	667	...	30,514	2,032	...	...	10,668	...	...	9	...	22	...	53,895
New Zealand	759,268	7,457	11	...	...	...	...	...	...	...	...	15,433	22,118	847,510
Oceania (other) ²	20,869	...	...	...	...	...	...	...	...	...	...	7,660	28,538	
Total, Oceania	1,028,172	13,106	11	85,225	2,050	...	10,668	...	75	9	22	21,414	47,563	1,208,315	
Asia:															
East Indies															
China		748	...	...	...	...	19	516	...	...	...	...	...	748
Hong Kong		...	...	...	...	...	...	...	...	...	40	...	...	575
Indochina		...	...	...	...	...	...	...	...	...	...	...	...
Indonesia		...	...	...	...	...	...	...	...	...	...	...	...
India		...	...	...	...	...	...	...	...	...	...	...	...
Japan	27,708	5,222	...	75	70	...	7,715	...	...	...	9,620	...	8,431	58,841
Philippine Islands		...	...	...	...	...	...	...	...	...	...	...	...	203
Asia (other) ²	203	...	...	...	...	...	...	...	...	...	...	...	...
Total, Asia	28,659	5,222	...	75	70	19	8,231	...	...	...	9,660	...	8,431	60,367
Antarctica		12,943	10,107	...	...	...	41,910	...	...	...	...	9,310	...	74,270
Grand total	3,944,667	629,502	75,522	451,684	344,502	22,869	1,487,364	97,788	22,943	213,218	132,247	1,633,050	565,643	9,620,999	
Percent of Atlantic-bound cargo	15,603	2,490	0,299	1,786	1,363	0,091	5,883	0,387	0,091	0,843	0,523	6,459	2,237	38,056	

See footnotes at end of table.

**Table 21.—Origin and Destination of Cargo Through the Panama Canal from Pacific to Atlantic during Fiscal Year 1958
Segregated by Countries by Principal Trade Areas—Continued**

	To east coast South America										To Africa									
	Argentina	Brazil	Colombia	Venezuela	South America (other) ²	Total	To Asia	To Europe	Portuguese East Africa	Union of South Africa	Africa (other) ²	Total	Grand total							Percent of total Atlantic-bound cargo
West coast North America:																				
United States	9,208	112,819	14,454	97,911	3,430	237,822	28,318	24,405	52,813	7,125	84,403	5,106	877	20,200						
Canada	250	1,192	1,907	54,616	1,492	59,457	17,810	65,944	199,082	36,263	301,289	4,577	256	18,106						
Balboa, Canal Zone	35	23	456	83	835	597	9,161	167	167	167	167	7,908	715,621	2,831						
Central America/Mexico			774	8,385	2								516,221	2,042						
Hawaiian Islands			30	137																
Total, North America	9,493	114,034	17,621	161,132	4,924	307,204	46,128	90,409	251,895	43,388	365,692	10,923,883	43,209							
West coast South America:																				
Chile		3	10	12,757		12,770	58,324						5,367,842	21,232						
Colombia		9,042	7,454	8,018	2,011	9,042							232,590	920						
Ecuador				20,197	36	17,483	20,233	9,896					855,639	3,385						
Peru						211							3,888,541	16,381						
South America (other) ²	140												59,903	237						
Total, South America	143	16,506	41,043	2,047		59,739	68,220						10,404,524	41,156						
Oceania:						220	220													
Australia													412,556	1,632						
British Oceania													235,127	.930						
French Oceania													121,187	.479						
New Zealand													901,046	3,801						
Oceania (other) ²													29,499	.117						
Total, Oceania						439	439						1,759,414	6,959						
Asia:																				
East Indies						3	3													
China						237	4	244	3											
Hong Kong													107,118	.424						
Indochina													1,136	.005						
Indonesia													30,942	.122						
India													2,520	.010						
Japan													20,796	.082						
Philippine Islands	19,295	33,863	2,009	20,513	2,301	77,981							5,5414	.022						
Asia (other) ²		40,794	25,245	5,203	71,242								672,991	2,662						
Total, Asia	19,295	33,863	48,315	47,153	7,543	151,169	3						3,280	3,280						
Antarctica																				
Grand total	28,788	148,040	77,442	249,767	14,514	518,551	114,351	90,409	231,895	46,668	388,972	25,281,508								
Percent of Atlantic-bound cargo	0.114	0.556	0.306	0.988	0.057	2,051	0.452	0.358	0.185	0.996	1.539	100,000	100,000							

¹ Includes both local and transshipped cargo.
² Also includes cargo not routed to permit segregation between definite countries.

Table 22.—Cargo Shipments by Trade Routes—Atlantic to Pacific

[Thousands of long tons]

	Fiscal year			
	1958	1957	1956	1955
EAST COAST UNITED STATES TO—				
West coast United States-----	1,896	2,096	2,320	2,474
West coast Canada-----	30	51	78	70
West coast Central America/Mexico-----	183	146	204	137
West coast South America-----	<hr/> 1,372	<hr/> 1,465	<hr/> 1,295	<hr/> 1,091
Chile-----	552	607	453	NA
Colombia-----	241	197	307	NA
Ecuador-----	85	84	97	NA
Peru-----	510	553	410	NA
Others-----	14	24	28	NA
Hawaiian Islands-----	<hr/> 170	<hr/> 226	<hr/> 214	<hr/> 210
Oceania-----	<hr/> 571	<hr/> 647	<hr/> 751	<hr/> 816
Australia-----	400	396	471	NA
New Zealand-----	143	155	222	NA
Others-----	28	96	58	NA
Asia-----	<hr/> 8,522	<hr/> 10,477	<hr/> 7,286	<hr/> 6,441
British East Indies-----	53	77	32	NA
Formosa-----	229	260	227	NA
Hongkong-----	71	66	51	NA
Indochina-----	122	200	101	NA
Indonesia-----	60	255	40	NA
Japan-----	6,791	8,257	5,472	NA
Philippine Islands-----	403	477	412	NA
South Korea-----	650	659	831	NA
Thailand-----	50	50	42	NA
Others-----	93	176	78	NA
Balboa, C.Z.-----	<hr/> 16	<hr/> 24	<hr/> 26	<hr/> 25
Total-----	<hr/> 12,760	<hr/> 15,132	<hr/> 12,174	<hr/> 11,264
EAST COAST CANADA TO—				
West coast United States-----	14	21	14	15
West coast Canada-----	28	61	59	29
West coast Central America/Mexico-----	7	95	88	38
West coast South America-----	<hr/> 7	<hr/> 2	<hr/> -----	<hr/> 7
Oceania-----	<hr/> 99	<hr/> 104	<hr/> 103	<hr/> 133
Australia-----	74	80	68	NA
New Zealand-----	25	24	35	NA
Others-----	<hr/> -----	<hr/> -----	<hr/> -----	<hr/> -----
Asia-----	<hr/> 187	<hr/> 187	<hr/> 98	<hr/> 80
Japan-----	<hr/> 171	<hr/> 170	<hr/> 72	<hr/> NA
Others-----	<hr/> 16	<hr/> 16	<hr/> 26	<hr/> NA
Total-----	<hr/> 335	<hr/> 470	<hr/> 362	<hr/> 302

Table 22.—Cargo Shipments by Trade Routes—Atlantic to Pacific—Con.

[Thousands of long tons]

EAST COAST CENTRAL AMERICA/MEXICO TO—	Fiscal year			
	1958	1957	1956	1955
West coast Central America/Mexico—	2	2	4	11
West coast United States-----	-----	10	10	2
Oceania-----	48	56	43	-----
Australia-----	37	37	43	NA
New Zealand-----	11	19	-----	NA
Asia-----	6	-----	-----	1
Other territories-----	-----	-----	1	4
Total-----	56	68	58	18
EAST COAST SOUTH AMERICA TO—				
West coast United States-----	1,711	1,340	1,304	233
West coast Canada-----	4	5	5	2
West coast Central America/Mexico-----	132	120	86	78
West coast South America-----	948	774	800	463
Chile-----	484	583	581	NA
Colombia-----	277	46	70	NA
Ecuador-----	29	-----	3	NA
Peru-----	158	145	146	NA
Oceania-----	113	212	90	111
Australia-----	113	201	88	NA
Others-----	-----	11	2	NA
Asia-----	242	233	148	151
Japan-----	219	233	148	NA
Others-----	23	-----	-----	NA
Balboa, C.Z-----	80	70	24	27
Total-----	3,230	2,754	2,457	1,065
CRISTOBAL, CANAL ZONE TO—				
West coast Central America/Mexico-----	1	-----	1	13
West coast South America-----	2	1	-----	-----
Other territories-----	1	-----	1	-----
Total-----	4	1	2	13
WEST INDIES TO—				
West coast United States-----	583	188	174	253
West coast Canada-----	299	247	155	125
West coast Central America/Mexico-----	517	442	430	306
West coast South America-----	530	863	933	1,066
Chile-----	438	582	565	NA
Colombia-----	53	185	239	NA
Ecuador-----	21	28	4	NA
Peru-----	18	67	125	NA
Others-----	-----	1	-----	NA

Table 22.—Cargo Shipments by Trade Routes—Atlantic to Pacific—Con.

[Thousands of long tons]				
	<i>Fiscal year</i>			
	1958	1957	1956	1955
WEST INDIES TO—				
Balboa, C.Z.-----	338	279	286	202
Oceania-----	299	180	208	263
Australia-----	37	18	142	NA
British Oceania-----	49	10	-----	NA
New Zealand-----	212	141	56	NA
Others-----	1	11	10	NA
Asia-----	591	861	672	428
Indochina-----	18	-----	12	NA
Japan-----	536	812	571	NA
U.S.S.R.-----	22	25	44	NA
Others-----	15	24	45	NA
Antarctica (whaling grounds)-----	-----	-----	15	42
Total-----	3, 157	3, 060	2, 873	2, 685
<hr/>				
EUROPE TO—				
West coast United States-----	632	677	598	525
West coast Canada-----	257	394	310	197
West coast Central America/Mexico-----	303	279	239	261
West coast South America-----	762	780	765	667
Chile-----	218	226	200	NA
Colombia-----	137	81	118	NA
Ecuador-----	99	70	79	NA
Peru-----	288	329	310	NA
Others-----	20	74	58	NA
Hawaiian Islands-----	12	11	12	21
Oceania-----	997	993	1, 074	1, 185
British Oceania-----	70	61	42	NA
French Oceania-----	42	40	35	NA
New Zealand-----	869	749	969	NA
Others-----	16	143	28	NA
Asia-----	130	628	95	23
Japan-----	107	583	76	NA
South Korea-----	18	12	5	NA
Others-----	5	33	14	NA
Other territories-----	1	1	1	2
Total-----	3, 094	3, 763	3, 094	2, 881
<hr/>				
ASIA TO (MIDDLE EAST) —				
West coast United States-----	104	82	160	116
Asia-----	-----	11	-----	-----
Other territories-----	12	2	-----	-----
Total-----	116	95	160	116

Table 22.—Cargo Shipments by Trade Routes—Atlantic to Pacific—Con.

[Thousands of long tons]

AFRICA TO—	Fiscal year			
	1958	1957	1956	1955
West coast United States-----	62	74	71	37
West coast Canada-----	2	2	3	4
West coast South America-----	16	2	32	33
Oceania-----		4	-----	1
Asia-----	11	5	-----	-----
Total-----	91	87	106	75
Total cargo—Atlantic to Pacific-----	22,843	25,430	21,286	18,419

NA—Not available.

Table 23.—Cargo Shipments by Trade Routes—Pacific to Atlantic

[Thousands of long tons]

WEST COAST UNITED STATES TO—	Fiscal year			
	1958	1957	1956	1955
East coast United States-----	2,770	2,480	3,956	3,505
East coast Canada-----	17	23	73	64
East coast Central America/Mexico-----	10	10	1	-----
East coast South America-----	238	260	120	198
Brazil-----	113	142	21	NA
Colombia-----	14	13	16	NA
Venezuela-----	98	64	65	NA
Others-----	13	41	18	NA
Cristobal, C.Z.-----	37	10	18	36
West Indies-----	388	428	328	711
British West Indies-----	17	10	13	NA
Cuba-----	99	83	113	NA
Netherland West Indies-----	71	121	4	NA
Puerto Rico-----	188	207	191	NA
Others-----	13	7	7	NA
Europe-----	1,535	2,175	2,099	1,456
British Isles-----	229	284	291	NA
Belgium-----	201	248	465	NA
Denmark-----	47	11	17	NA
France-----	112	567	97	NA
Italy-----	108	140	60	NA
Irish Republic-----	18	36	13	NA
Netherlands-----	337	281	560	NA
Norway-----	30	28	35	NA
Poland-----	17	-----	-----	NA
Sweden-----	53	49	42	NA
West Germany-----	243	230	196	NA
Others-----	140	301	323	NA
Asia-----	28	30	58	2
Israel-----	19	-----	29	NA
Others-----	9	30	29	NA

Table 23.—Cargo Shipments by Trade Routes—Pacific to Atlantic—Con.

[Thousands of long tons]

	Fiscal year			
	1958	1957	1956	1955
WEST COAST UNITED STATES To—				
Africa-----	84	96	107	180
Portuguese East Africa-----	24	9	27	NA
Union of South Africa-----	53	36	62	NA
Others-----	7	51	18	NA
Total-----	5, 107	5, 512	6, 760	6, 152
WEST COAST CANADA To—				
East coast United States-----	483	305	400	477
East coast Canada-----	14	7	76	95
East coast South America-----	59	37	31	47
Venezuela-----	54	33	21	NA
Others-----	5	4	10	NA
West Indies-----	110	73	85	98
British West Indies-----	27	20	27	NA
Puerto Rico-----	68	43	39	NA
Others-----	15	10	19	NA
Europe-----	3, 591	2, 736	2, 609	2, 917
British Isles-----	2, 174	1, 301	1, 613	NA
Belgium-----	180	272	155	NA
France-----	54	52	25	NA
Italy-----	153	66	51	NA
Netherlands-----	402	159	240	NA
Norway-----	65	55	37	NA
U.S.S.R-----	54	-----	8	NA
West Germany-----	287	475	173	NA
Others-----	222	356	307	NA
Asia-----	18	45	20	70
Africa-----	301	296	415	404
Portuguese East Africa-----	66	81	82	NA
Union of South Africa-----	199	187	307	NA
Others-----	36	28	26	NA
Other territories-----	1	2	1	1
Total-----	4, 577	3, 501	3, 637	4, 109
WEST COAST CENTRAL AMERICA/MEXICO				
To—				
East coast United States-----	495	376	385	393
East coast Central America/Mexico-----	4	17	2	21
East coast South America-----	9	8	7	5
Cristobal, C.Z-----	22	45	45	27
West Indies-----	15	9	19	11

Table 23.—Cargo Shipments by Trade Routes—Pacific to Atlantic—Con.

[Thousands of long tons]

WEST COAST CENTRAL AMERICA/MEXICO To—	Fiscal year			
	1958	1957	1956	1955
Europe-----	165	165	243	143
British Isles-----	20	10	19	NA
Netherlands-----	26	16	35	NA
West Germany-----	92	99	122	NA
Others-----	27	40	67	NA
Other territories-----	6	-----	-----	-----
Total-----	716	620	701	600
WEST COAST SOUTH AMERICA To—				
East coast United States-----	7,292	5,888	4,897	4,878
East coast Canada-----	1	1	10	9
East coast South America-----	60	97	68	55
Colombia-----	17	16	16	NA
Venezuela-----	41	14	21	NA
Others-----	2	67	31	NA
Cristobal, C.Z.-----	7	41	12	9
West Indies-----	33	52	44	35
Cuba-----	23	19	22	NA
Others-----	10	33	22	NA
Europe-----	2,932	2,810	2,396	1,823
British Isles-----	439	450	428	NA
Belgium-----	201	262	248	NA
Denmark-----	27	36	47	NA
France-----	195	81	116	NA
Italy-----	78	104	109	NA
Netherlands-----	652	641	290	NA
Spain and Portugal-----	205	177	194	NA
Sweden-----	64	67	71	NA
West Germany-----	964	833	716	NA
Others-----	107	159	177	NA
Asia-----	68	10	141	20
Egypt-----	50	-----	100	NA
Others-----	18	10	41	NA
Africa-----	-----	10	3	83
Other territories-----	12	4	5	-----
Total-----	10,405	8,913	7,576	6,912
BALBOA, C.Z. To—				
Cristobal, C.Z.-----	-----	1	-----	-----
West Indies-----	3	2	-----	-----
Europe-----	3	7	10	3
Other territories-----	2	2	1	2
Total-----	8	12	11	5

Table 23.—Cargo Shipments by Trade Routes—Pacific to Atlantic—Con.

[Thousands of long tons]

	<i>Fiscal year</i>			
	1958	1957	1956	1955
HAWAIIAN ISLANDS To—				
East coast United States-----	455	540	653	644
East coast Canada-----	9	-----	1	6
Europe-----	52	51	19	9
British Isles-----	13	10	-----	NA
West Germany-----	17	11	3	NA
Others-----	22	30	16	NA
Other territories-----	1	1	-----	-----
Total -----	517	592	673	659
OCEANIA To—				
East coast United States-----	351	329	285	198
East coast Canada-----	164	136	140	127
West Indies-----	33	38	26	27
British West Indies-----	31	36	24	NA
Others-----	2	2	2	NA
Europe-----	1, 208	1, 968	1, 197	1, 144
British Isles-----	1, 028	1, 533	1, 007	NA
Belgium-----	13	39	8	NA
France-----	85	154	94	NA
Netherlands-----	11	25	37	NA
West Germany-----	21	58	20	NA
Others-----	50	159	31	NA
Other territories-----	3	2	3	1
Total -----	1, 759	2, 473	1, 651	1, 497
ASIA To—				
East coast United States-----	1, 832	2, 086	2, 281	1, 879
East coast Canada-----	-----	28	13	3
East coast South America-----	151	193	306	247
Argentina-----	19	33	155	NA
Brazil-----	34	52	53	NA
Colombia-----	43	52	54	NA
Venezuela-----	47	45	31	NA
Others-----	8	11	13	NA
Cristobal, C.Z.-----	29	30	20	21
West Indies-----	35	65	20	35
Europe-----	60	179	98	51
British Isles-----	28	86	32	NA
Others-----	32	93	66	NA
Africa-----	4	34	43	18
Total -----	2, 111	2, 615	2, 781	2, 254

Table 23.—Cargo Shipments by Trade Routes—Pacific to Atlantic—Con.

	[Thousands of long tons]			
	Fiscal year			
	1958	1957	1956	1955
ANTARCTICA (WHALING GROUNDS) To—				
East coast United States-----	8	-----	8	2
Europe-----	74	34	35	37
Total-----	82	34	43	39
Total cargo—Pacific to Atlantic-----	25,282	24,272	23,833	22,227
NA—Not available.				

Table 24.—Important Commodity Shipments Over Principal Trade Routes—Atlantic to Pacific

	[Thousands of long tons]			
	Fiscal year			
	1958	1957	1956	1955
EAST COAST UNITED STATES TO WEST COAST				
UNITED STATES:				
Bricks and tile-----	3	5	6	5
Canned food products-----	14	24	28	35
Chemicals, unclassified-----	203	75	46	35
Confectionery-----	15	12	16	17
Electrical equipment-----	26	23	24	30
Floor coverings-----	10	8	15	17
Groceries, unclassified-----	18	14	20	22
Iron and steel manufacturers-----	731	1,024	989	792
Liquors-----	23	22	22	27
Machinery-----	6	11	10	14
Metals, various-----	30	18	12	13
Paints-----	8	9	9	10
Paper and paper products-----	73	101	110	99
Petroleum and products:				
Crude oil-----	11	9	13	-----
Gasoline-----	142	131	306	660
Lubricating oil-----	231	223	229	192
Fuel oil-----		5	12	7
Other and unclassified-----	38	44	34	25
Pharmaceutical products-----	21	20	20	22
Soap and soap products-----	7	7	8	7
Soda and sodium compounds-----	8	13	16	23
Sulfur-----	61	72	91	112
Textiles-----	9	8	10	18
Woodpulp-----	1	19	18	13
All other and unclassified-----	207	199	256	279
Total-----	1,896	2,096	2,320	2,474
EAST COAST UNITED STATES TO WEST COAST				
CANADA:				
Ammonium compounds-----	4	4	3	6
Rice-----	4	-----	7	5
Sulfur-----	14	39	43	37
Tinplate-----	-----	-----	-----	5
All other and unclassified-----	8	8	25	17
Total-----	30	51	78	70

Table 24.—Important Commodity Shipments Over Principal Trade Routes—Atlantic to Pacific—Continued

[Thousands of long tons]

EAST COAST UNITED STATES TO WEST COAST	Fiscal year			
	1958	1957	1956	1955
CENTRAL AMERICA/MEXICO:				
Ammonium compounds	2	5	1	1
Chemicals, unclassified	15	14	20	22
Corn	37	—	72	7
Fertilizers, miscellaneous and unclassified	12	13	10	7
Iron and steel manufactures	13	19	10	9
Lime	5	9	10	13
Petroleum and products:				
Gasoline	4	5	5	1
Lubricating oil	4	3	5	3
Other and unclassified	2	11	—	1
Wheat	29	13	4	2
All other and unclassified	60	54	67	71
Total	183	146	204	137
EAST COAST UNITED STATES TO WEST COAST				
SOUTH AMERICA:				
Agricultural implements	18	19	20	20
Ammonium compounds	32	17	13	9
Asphalt	12	6	34	24
Automobiles and parts	46	64	58	73
Barley	4	12	—	—
Bricks and tile	7	11	15	12
Canned food products	24	21	34	31
Chemicals, unclassified	34	28	29	28
Coal	164	214	159	168
Corn	38	9	3	1
Cotton, raw	10	17	5	6
Electrical equipment	8	9	11	9
Fertilizers, miscellaneous and unclassified	3	9	7	13
Flour	56	48	44	37
Grains, unclassified	6	10	8	7
Iron and steel manufactures	141	157	124	96
Lumber	2	8	1	3
Machinery	69	79	73	54
Oilseeds and products	2	7	9	5
Paper and paper products	20	24	26	22
Petroleum and products:				
Fuel-diesel oil	21	—	—	—
Gasoline	65	72	64	44
Lubricating oil	60	55	64	45
Other and unclassified	3	3	5	5
Phosphates	27	16	13	4
Pulpwood	17	4	9	7
Railroad materials	4	34	—	1
Rice	38	1	12	3
Rubber, manufactured	8	7	10	7
Soda and sodium compounds	18	9	11	4
Soya beans	—	7	—	—
Tallow	7	6	13	10
Tinplate	15	17	22	14
Vegetable oils, miscellaneous	8	32	10	9
Wax, paraffin	17	16	22	22
Wheat	190	254	178	92
All other and unclassified	178	163	189	206
Total	1,372	1,465	1,295	1,091

Table 24.—Important Commodity Shipments Over Principal Trade Routes—Atlantic to Pacific—Continued

[Thousands of long tons]

	Fiscal year			
	1958	1957	1956	1955
EAST COAST UNITED STATES TO HAWAIIAN ISLANDS:				
Automobiles and parts	4	4	5	8
Chemicals, unclassified	5	6	4	5
Fertilizers, miscellaneous and unclassified	2	5	10	7
Iron and steel manufactures	30	37	28	33
Machinery	5	5	3	6
Paper and paper products	11	11	13	14
Phosphate	5	17	3	1
Soya beans	7	5	4	3
Tinplate	39	57	81	46
All other and unclassified	62	79	63	87
Total	170	226	214	210
EAST COAST UNITED STATES TO OCEANIA:				
Agricultural implements	22	17	29	27
Automobiles and parts	12	17	26	26
Carbon black	10	11	13	16
Chemicals, unclassified	8	9	8	7
Clay	7	6	8	6
Coke		71	23	28
Cotton, raw	18	19	11	12
Iron and steel manufactures	20	17	33	36
Machinery	23	21	23	26
Petroleum and products:				
Fuel-diesel oil	1	6	22	3
Gasoline	7	29	36	74
Lubricating oil	111	104	119	120
Other and unclassified	3	7	7	10
Potash	11	13	19	7
Rosin	10	11	12	9
Rubber, manufactured	19	13	10	2
Sulfur	190	171	260	296
Tinplate	6	22	18	39
Tobacco and manufactures	21	20	21	22
All other and unclassified	72	60	53	50
Total	571	644	751	816
EAST COAST UNITED STATES TO ASIA:				
Agricultural implements	5	6	4	3
Ammonium compounds	87	194	346	182
Asphalt	28	7	15	9
Automobiles and parts	31	41	34	34
Barley	1	87		
Bricks and tile	4	8	3	5
Canned food products	81	86	50	58
Carbon black	13	20	11	9
Clay	7	15	11	5
Chemicals, unclassified	63	54	31	23
Coal and coke	3,676	3,514	2,802	3,030
Corn	239	49	95	156
Cotton, raw	306	341	178	186
Electrical equipment	7	9	15	7
Fertilizers, miscellaneous and unclassified	14	42	37	33
Flour	119	129	38	20
Grains, miscellaneous and unclassified	6	15	29	87
Groceries, unclassified	19	16	8	5

Table 24.—Important Commodity Shipments Over Principal Trade Routes—Atlantic to Pacific—Continued

[Thousands of long tons]

	<i>Fiscal year</i>			
	1958	1957	1956	1955
EAST COAST UNITED STATES TO ASIA—Con.				
Iron and steel manufactures	276	482	85	101
Lumber	2	5	5	9
Machinery	88	71	63	60
Metal, scrap	450	1,445	491	21
Metals, various	125	468	18	11
Oilseeds	3	13	9	12
Paints	4	5	6	6
Paper and paper products	43	50	45	47
Petroleum and products:				
Fuel-diesel oil		6	7	1
Gasoline	46	86	28	86
Lubricating oil	131	120	106	60
Other and unclassified	28	37	14	12
Pulpwood	8	11	3	3
Phosphates	1,132	1,411	1,147	957
Potash	3		24	10
Railroad materials	18	10	8	20
Rice	36	265	140	19
Rosin	33	36	22	19
Rubber, manufactured	16	19	12	8
Soda and sodium compounds	6	27	10	8
Soybeans	803	682	726	561
Sugar	3	19	17	6
Sulfur	8	14	23	9
Tallow	8	15	19	17
Textiles	28	29	28	40
Tinplate	74	124	90	65
Tobacco and manufactures	19	23	30	23
Wheat	84		31	106
All other and unclassified	341	422	345	292
Total	8,522	10,478	7,259	6,441
EAST COAST UNITED STATES TO BALBOA, C.Z. (No single outstanding commodity in this trade route.)				
EAST COAST CANADA TO WEST COAST UNITED STATES:				
Ores, various	8	6	12	6
All other and unclassified	6	1	2	9
Total	14	7	14	15
EAST COAST CANADA TO WEST COAST CANADA:				
Chemicals, unclassified		5	2	6
Iron and steel manufactures	12	11	7	7
Ore, bauxite	12	38	36	6
All other and unclassified	4	6	14	10
Total	28	60	59	29
EAST COAST CANADA TO WEST COAST SOUTH AMERICA:				
Wheat	2			1
All other and unclassified	5	2		6
Total	7	2		7

Table 24.—Important Commodity Shipments Over Principal Trade Routes—Atlantic to Pacific—Continued

	Thousands of long tons]			
	Fiscal year			
	1958	1957	1956	1955
EAST COAST CANADA TO OCEANIA:				
Asbestos	12	11	14	23
Automobiles and parts	5	7	11	13
Metals, various	8	10	9	11
Paper and paper products	60	57	50	67
All other and unclassified	14	19	19	19
Total	99	104	103	133
EAST COAST CANADA TO ASIA:				
Ammonium compounds	2	---	9	9
Asbestos	31	35	27	16
Iron and steel manufactures	13	27	---	---
Metal, iron	70	50	---	---
Metal, scrap	26	11	2	---
Oilseeds	---	8	17	32
Ore, iron	---	9	---	---
Paper and paper products	8	7	11	7
Slag	6	21	15	---
All other and unclassified	31	19	17	16
Total	187	187	98	80
EAST COAST CENTRAL AMERICA/MEXICO TO WEST COAST CENTRAL AMERICA/MEXICO. (No single outstanding commodity in this trade route.)				
EAST COAST CENTRAL AMERICA/MEXICO TO OCEANIA:				
Sulfur	48	56	43	---
All other and unclassified	---	---	---	---
Total	48	56	43	---
EAST COAST CENTRAL AMERICA/MEXICO TO ASIA. (No single outstanding commodity in this trade route.)				
EAST COAST SOUTH AMERICA TO WEST COAST UNITED STATES:				
Asphalt	18	---	---	---
Bones and bonemeal	10	6	3	8
Canned meat	4	5	6	4
Coffee	28	50	53	20
Oilseeds	---	---	---	4
Ores:				
Bauxite	26	20	22	23
Other and unclassified	---	2	3	---
Petroleum and products:				
Crude oil	1,614	1,235	1,180	164
Lubricating oil	---	---	22	---
All other and unclassified	11	22	15	10
Total	1,711	1,340	1,304	233
EAST COAST SOUTH AMERICA TO WEST COAST CANADA. (No single outstanding commodity in this trade route.)				

Table 24.—Important Commodity Shipments Over Principal Trade Routes—Atlantic to Pacific—Continued

[Thousands of long tons]

	Fiscal year			
	1958	1957	1956	1955
EAST COAST SOUTH AMERICA TO WEST COAST CENTRAL AMERICA/MEXICO:				
Asphalt	17	23	18	18
Cement	3	—	1	1
Petroleum and products:				
Crude oil	—	—	—	10
Fuel-diesel oil	109	64	57	49
Gasoline	1	33	9	—
All other and unclassified	2	—	1	—
Total	<u>132</u>	<u>120</u>	<u>86</u>	<u>78</u>
EAST COAST SOUTH AMERICA TO WEST COAST SOUTH AMERICA:				
Petroleum and products:				
Crude oil	328	443	350	158
Fuel-diesel oil	398	252	396	239
Gasoline	134	17	—	18
Kerosene	49	—	—	—
Lubricating oil	—	16	23	—
Salt	14	12	12	11
Sugar	5	20	—	10
All other and unclassified	20	14	19	27
Total	<u>948</u>	<u>774</u>	<u>800</u>	<u>463</u>
EAST COAST SOUTH AMERICA TO OCEANIA:				
Petroleum and products:				
Crude oil	63	150	61	59
Fuel-diesel oil	16	—	—	—
Gasoline	—	11	—	15
Lubricating oil	30	41	29	37
All other and unclassified	4	10	—	—
Total	<u>113</u>	<u>212</u>	<u>90</u>	<u>111</u>
EAST COAST SOUTH AMERICA TO ASIA:				
Beans, edible	—	—	5	14
Corn	21	19	—	1
Cotton, raw	16	20	13	19
Metal, iron	2	39	25	—
Ores:				
Bauxite	5	5	10	5
Iron	108	110	15	2
Petroleum and products:				
Crude oil	13	—	—	—
Gasoline	23	—	—	—
Soya beans	—	2	15	3
Sugar	22	—	36	73
Wheat	—	—	6	17
Wool	6	8	11	10
All other and unclassified	26	30	12	7
Total	<u>242</u>	<u>233</u>	<u>148</u>	<u>151</u>

Table 24.—Important Commodity Shipments Over Principal Trade Routes—Atlantic to Pacific—Continued

[Thousands of long tons]

EAST COAST SOUTH AMERICA TO BALBOA, C.Z.:	Fiscal year			
	1958	1957	1956	1955
Petroleum products:				
Fuel-diesel oil	69	36	9	17
Gasoline		12	9	9
Lubricating oil	7	16	—	—
Other and unclassified			1	1
All other and unclassified	4	6	5	—
Total	80	70	24	27
WEST INDIES TO WEST COAST UNITED STATES:	—	—	—	—
Molasses			23	52
Ore, bauxite		5	6	—
Petroleum products:				
Crude oil	107	124	137	131
Fuel-diesel oil	15	—	—	—
Gasoline	333	49	—	—
Salt	11	—	—	64
Sugar	92	5	—	1
All other and unclassified	25	5	8	5
Total	583	188	174	253
WEST INDIES TO WEST COAST CANADA:	—	—	—	—
Ore, bauxite	278	239	134	102
Sugar	10	8	20	22
All other and unclassified	11	—	1	1
Total	299	247	155	125
WEST INDIES TO WEST COAST CENTRAL AMERICA/MEXICO:	—	—	—	—
Petroleum and products:				
Crude oil	2	33	4	20
Fuel-diesel oil	211	157	164	102
Gasoline	230	155	170	143
Kerosene	60	46	45	36
Lubricating oil	6	30	20	—
Other and unclassified	4	18	22	4
All other and unclassified	4	3	5	1
Total	517	442	430	306
WEST INDIES TO WEST COAST SOUTH AMERICA:	—	—	—	—
Asphalt	3	6	—	—
Petroleum and products:				
Crude oil		16	—	15
Fuel-diesel oil	375	540	509	594
Gasoline	68	122	191	252
Kerosene	57	59	118	92
Lubricating oil	5	32	20	14
Other and unclassified	18	33	20	45
Sugar	2	52	75	46
All other and unclassified	2	3	—	8
Total	530	863	933	1,066

Table 24.—Important Commodity Shipments Over Principal Trade Routes—Atlantic to Pacific—Continued

[Thousands of long tons]

	Fiscal year			
	1958	1957	1956	1955
WEST INDIES TO BALBOA, C.Z.:				
Petroleum and products:				
Fuel-diesel oil	188	146	150	116
Gasoline	117	71	120	60
Kerosene	25	16	16	9
Lubricating oil	7	16		
Other and unclassified		30		17
All other and unclassified	1			
Total	338	279	286	202
WEST INDIES TO OCEANIA:				
Asphalt	29	43	34	44
Petroleum and products:				
Crude oil			66	53
Fuel-diesel oil	61	26	12	18
Gasoline	164	81	60	125
Lubricating oil	32	14	30	18
Other and unclassified	1	8		
All other and unclassified	12	8	6	5
Total	299	180	208	263
WEST INDIES TO ASIA:				
Metal, scrap	51	5	4	
Petroleum and products:				
Crude oil	11			11
Fuel-diesel oil		22		15
Gasoline		24	34	48
Ore, bauxite	6	35	3	
Sugar	510	768	628	351
All other and unclassified	13	7	3	3
Total	591	861	672	428
EUROPE TO WEST COAST, UNITED STATES:				
Ammonium compounds	26	36	47	37
Automobiles and parts	96	71	34	21
Canned food products	7	7	9	6
Cement	9	10	11	5
Chemicals, unclassified	23	18	16	15
Clay	2	6	5	9
Creosote	20	25	28	28
Fertilizers, miscellaneous and unclassified	35	28	54	60
Glass and glassware	29	31	37	23
Groceries	6	5	5	5
Iron and steel manufactures	138	152	106	120
Liquors and wines	31	27	25	24
Lumber	3	5	6	5
Machinery	11	13	13	7
Molasses				12
Ore, copper				10
Paper and paper products	45	106	88	35
Peat moss	5	5	7	
Soda	1	7	1	1
Woodpulp	3	4	6	7
All other and unclassified	142	121	100	95
Total	632	677	598	525

Table 24.—Important Commodity Shipments Over Principal Trade Routes—Atlantic to Pacific—Continued

	[Thousands of long tons]			
	Fiscal year			
	1958	1957	1956	1955
EUROPE TO WEST COAST CANADA:				
Asphalt	13	12	—	—
Automobiles and parts	13	13	12	6
Chemicals, unclassified	4	6	10	9
Clay	5	3	5	2
Creosote	10	12	5	5
Glass and glassware	13	10	14	8
Iron and steel manufactures	102	241	185	98
Liquors and wines	9	10	7	6
Machinery	7	8	7	5
Metal, copper	—	12	1	—
All other and unclassified	81	67	64	58
Total	257	394	310	197
EUROPE TO WEST COAST CENTRAL AMERICA/MEXICO:				
Ammonium compounds	45	27	13	6
Canned food products	6	7	8	3
Cement	53	60	74	104
Chemicals, unclassified	8	10	11	9
Fertilizers, miscellaneous and unclassified	53	35	27	27
Iron and steel manufactures	47	57	57	46
Paper and paper products	6	7	5	4
Phosphates	16	15	5	6
All other and unclassified	69	61	39	56
Total	303	279	239	261
EUROPE TO WEST COAST SOUTH AMERICA:				
Agricultural implements	5	5	5	8
Ammonium compounds	20	12	12	12
Automobiles and parts	12	12	9	13
Canned food products	22	25	16	25
Cement	48	99	80	41
Chemicals, unclassified	61	38	39	36
Electrical equipment	12	13	12	11
Fertilizers, miscellaneous and unclassified	39	22	5	8
Glass and glassware	16	11	18	12
Grains, unclassified	6	6	4	7
Groceries, unclassified	7	7	6	4
Iron and steel manufactures	157	195	226	195
Machinery	47	51	50	42
Metal, iron	18	13	7	18
Oils, vegetable	2	2	2	5
Paper and paper products	38	42	38	34
Phosphates	39	24	26	20
Potash	13	4	2	—
Railroad materials	13	9	17	5
Soda and sodium compounds	11	14	18	10
Textiles	6	6	6	5
Wax, paraffin	6	7	5	4
Woodpulp	17	24	28	17
All other and unclassified	147	139	134	135
Total	762	780	765	667

Table 24.—Important Commodity Shipments Over Principal Trade Routes—Atlantic to Pacific—Continued

[Thousands of long tons]

	<i>Fiscal year</i>			
	1958	1957	1956	1955
EUROPE TO HAWAIIAN ISLANDS:				
Ammonium compounds	-----	-----	-----	18
Fertilizers, miscellaneous and unclassified	11	10	11	2
All other and unclassified	1	1	1	1
Total	<u>12</u>	<u>11</u>	<u>12</u>	<u>21</u>
EUROPE TO OCEANIA:				
Agricultural implements	14	14	9	13
Asphalt	16	15	3	1
Ammonium compounds	3	13	14	10
Automobiles and parts	53	63	61	63
Cement	30	44	107	136
Chemicals, unclassified	43	39	39	34
Coke	-----	-----	-----	41
Electrical equipment	13	12	12	11
Fertilizers, miscellaneous and unclassified	6	10	7	18
Floor coverings	7	7	8	6
Glass and glassware	16	12	16	10
Iron and steel manufactures	229	204	248	226
Liquors and wines	20	19	20	16
Machinery	50	59	48	55
Metal, iron	8	14	6	7
Paper and paper products	38	46	38	38
Petroleum and products:				
Fuel-diesel oil	-----	1	-----	31
Gasoline	-----	1	-----	25
Lubricating oil	16	13	10	6
Other and unclassified	2	2	1	2
Potash	22	18	26	22
Railroad materials	3	6	5	3
Salt	30	33	38	28
Slag	42	31	53	66
Soda and sodium compounds	8	8	10	5
Textiles	18	22	23	16
Tinplate	27	62	27	30
Vegetable oils	5	5	6	7
Woodpulp	6	5	4	10
All other and unclassified	272	215	235	249
Total	<u>997</u>	<u>993</u>	<u>1,074</u>	<u>1,185</u>
EUROPE TO ASIA:				
Ammonium compounds	13	11	2	2
Chemicals, unclassified	4	9	13	1
Iron and steel manufactures	5	165	2	1
Machinery	13	11	1	2
Metal, iron	6	61	1	-----
Metal, scrap	1	36	-----	-----
Phosphates	9	26	10	-----
Potash	46	203	40	-----
Soda	3	31	-----	-----
Sugar	1	10	-----	-----
All other and unclassified	29	65	26	17
Total	<u>130</u>	<u>628</u>	<u>95</u>	<u>23</u>

Table 24.—Important Commodity Shipments Over Principal Trade Routes—Atlantic to Pacific—Continued

	Thousands of long tons]				Fiscal year
	1958	1957	1956	1955	
ASIA TO WEST COAST UNITED STATES:					
Ores, copper-----	21	51	20	—	
Petroleum and products: Crude oil-----	75	26	133	111	
All other and unclassified-----	8	5	7	5	
Total-----	104	82	160	116	
AFRICA TO WEST COAST UNITED STATES:					
Asbestos-----	8	8	6	5	
Coffee-----	14	12	10	4	
Ore, chrome-----	30	49	39	16	
All other and unclassified-----	10	5	16	12	
Total-----	62	74	71	37	
AFRICA TO WEST COAST SOUTH AMERICA:					
Cotton, raw-----	—	—	—	1	
Phosphates-----	16	2	32	32	
Total-----	16	2	32	33	

Table 25.—Important Commodity Shipments Over Principal Trade Routes—Pacific to Atlantic

	Thousands of long tons]				Fiscal year
	1958	1957	1956	1955	
WEST COAST UNITED STATES TO EAST COAST UNITED STATES:					
Beans-----	10	9	8	15	
Borax-----	4	4	3	4	
Canned food products-----	481	479	540	534	
Chemicals, unclassified-----	125	79	61	54	
Fruit, dried-----	58	56	62	72	
Groceries, unclassified-----	7	3	3	8	
Iron and steel manufactures-----	3	12	14	8	
Lumber-----	1, 285	1, 382	1, 610	1, 387	
Machinery-----	2	7	4	9	
Metals:					
Lead-----	5	4	17	19	
Other and unclassified-----	13	7	3	4	
Ores:					
Magnesite-----	10	11	10	5	
Other and unclassified-----	1	1	15	2	
Paper and paper products-----	48	47	39	37	
Petroleum and products:					
Crude oil-----	79	—	47	79	
Fuel-diesel oil-----	201	18	1, 138	858	
Gasoline-----	19	11	6	7	
Lubricating oil-----	61	55	57	79	
Other and unclassified-----	99	106	121	66	
Rice-----	11	9	5	7	
Seeds, except oilseeds-----	12	9	10	12	
Vegetable oils-----	12	—	1	13	
Wines-----	59	33	50	52	
Woodpulp-----	96	72	62	84	
Wool-----	2	4	3	4	
All other and unclassified-----	67	62	67	86	
Total-----	2, 770	2, 480	3, 956	3, 505	

Table 25.—Important Commodity Shipments Over Principal Trade Routes—Pacific to Atlantic—Continued

		Fiscal year			
		1958	1957	1956	1955
WEST COAST UNITED STATES TO EAST COAST CANADA:					
Canned food products	9	17	10	9	
Lumber	2	3	6	—	
Petroleum and products: Fuel-diesel oil	—	—	56	52	
All other and unclassified	6	3	1	3	
Total	17	23	73	64	
WEST COAST UNITED STATES TO EAST COAST SOUTH AMERICA:					
Borax	2	6	5	4	
Canned food products	16	11	11	16	
Chemicals, unclassified	3	6	5	3	
Iron and steel manufactures	18	31	13	4	
Lumber	16	9	7	11	
Machinery	6	8	5	6	
Paper and paper products	12	8	11	11	
Peas, dry	8	6	4	3	
Petroleum and products: Lubricating oil	3	5	7	4	
Soda and sodium compounds	3	15	3	1	
Wheat	86	114	—	68	
Woodpulp	2	—	3	20	
All other and unclassified	63	41	46	47	
Total	238	260	120	198	
WEST COAST UNITED STATES TO CRISTOBAL, C.Z.:					
Petroleum and products: Fuel-diesel oil	23	—	9	28	
All other and unclassified	14	10	9	8	
Total	37	10	18	36	
WEST COAST UNITED STATES TO WEST INDIES:					
Beans, edible	37	35	35	32	
Canned food products	91	94	93	90	
Flour	7	3	15	23	
Iron and steel manufactures	3	9	12	8	
Lumber	16	22	22	12	
Paper and paper products	14	11	10	9	
Petroleum and products:					
Fuel-diesel oil	68	59	2	399	
Gasoline	—	35	—	—	
Kerosene	—	24	—	—	
Other and unclassified	4	1	6	2	
Rice	86	94	80	76	
Vegetables, dry	11	5	8	7	
Wheat	—	—	6	—	
All other and unclassified	51	36	39	53	
Total	388	428	328	711	

Table 25.—Important Commodity Shipments Over Principal Trade Routes—Pacific to Atlantic—Continued

[Thousands of long tons]

	<i>Fiscal year</i>			
	1958	1957	1956	1955
WEST COAST UNITED STATES TO EUROPE:				
Barley	309	66	911	146
Beans, edible	3	13	3	18
Borax	139	145	147	139
Canned food products	139	117	111	73
Chemicals, unclassified	9	10	6	10
Corn	1	108	22	—
Cotton, raw	103	116	71	118
Flour	16	19	14	16
Fruit, dried	78	83	84	59
Fruit, fresh	147	126	147	93
Grains, unclassified	11	2	15	10
Honey	5	4	4	6
Infusorial earth	15	16	7	—
Iron and steel manufactures	16	4	7	1
Lumber	101	125	109	95
Machinery	8	3	6	5
Metals:				
Copper	26	27	47	49
Other and unclassified	13	7	6	6
Metal, scrap	80	29	3	81
Oats	27	7	23	3
Oilseeds	1	8	27	82
Ores, various	10	12	22	12
Peas, dry	15	22	1	24
Petroleum and products: Fuel-diesel oil	28	—	107	107
Seeds, except oilseeds	14	15	10	15
Skins and hides	8	6	3	6
Tallow	4	11	6	4
Vegetable oils	1	9	1	93
Wheat	54	946	62	41
Woodpulp	52	34	28	55
All other and unclassified	102	85	89	89
Total	1,535	2,175	2,099	1,456
WEST COAST UNITED STATES TO ASIA:				
Barley	19	—	28	—
Wheat	—	29	25	—
All other and unclassified	9	1	5	2
Total	28	30	58	2
WEST COAST UNITED STATES TO AFRICA:				
Iron and steel manufactures	3	3	8	1
Lumber	48	27	60	135
Paper and paper products	9	3	7	8
Wheat	8	40	1	—
All other and unclassified	16	23	31	36
Total	84	96	107	180

Table 25.—Important Commodity Shipments Over Principal Trade Routes—Pacific to Atlantic—Continued

		Fiscal year			
		1958	1957	1956	1955
WEST COAST CANADA TO EAST COAST	UNITED STATES:				
Lumber		459	297	392	461
Paper and paper products		9	8	8	11
Woodpulp		15	—	—	11
All other and unclassified		—	—	—	4
Total		483	305	400	477
WEST COAST CANADA TO EAST COAST	CANADA:				
Canned food products		—	1	1	4
Lumber		12	6	11	13
Petroleum and products: Gasoline		—	—	60	77
All other and unclassified		2	—	4	1
Total		14	7	76	95
WEST COAST CANADA TO EAST COAST	SOUTH AMERICA:				
Lumber		29	30	16	6
Wheat		10	—	—	21
All other and unclassified		20	7	15	20
Total		59	37	31	47
WEST COAST CANADA TO WEST INDIES:					
Flour		15	15	23	14
Lumber		88	53	53	47
Wheat		—	—	4	29
All other and unclassified		7	5	5	8
Total		110	73	85	98
WEST COAST CANADA TO EUROPE:					
Asbestos		10	7	7	—
Barley		380	375	141	238
Canned food products		8	8	12	—
Flour		7	14	31	—
Fruit, fresh		9	8	13	18
Grains, unclassified		53	6	19	20
Lumber		808	518	799	1,202
Metals:					
Aluminum		44	25	—	—
Lead		41	44	38	49
Zinc		63	58	54	75
Other and unclassified		4	2	4	6
Oats		24	4	4	59
Oilseeds		138	52	—	—
Ores:					
Iron		2	4	99	5
Magnesite		—	—	10	—
Other and unclassified		20	20	29	29
Paper and paper products		22	7	5	2
Wheat		1,788	1,448	1,194	992
Woodpulp		94	110	117	171
All other and unclassified		76	26	33	35
Total		3,591	2,736	2,609	2,917

Table 25.—Important Commodity Shipments Over Principal Trade Routes—Pacific to Atlantic—Continued

[Thousands of long tons]

	Fiscal year			
	1958	1957	1956	1955
WEST COAST CANADA TO ASIA:				
Wheat	10	45	19	70
All other and unclassified	8	-----	1	-----
Total	18	45	20	70
WEST COAST CANADA TO AFRICA:				
Lumber	264	234	248	233
Machinery	-----	4	-----	8
Wheat	25	47	155	154
All other and unclassified	12	11	12	9
Total	301	296	415	404
WEST COAST CENTRAL AMERICA/MEXICO TO EAST COAST UNITED STATES:				
Bananas	337	203	283	324
Coffee	23	22	24	33
Lumber	9	7	10	15
Ores:				
Iron	3	18	12	5
Manganese	102	106	45	-----
Sugar	11	6	2	7
All other and unclassified	10	14	9	9
Total	495	376	385	393
WEST COAST CENTRAL AMERICA/MEXICO TO EAST COAST CENTRAL AMERICA/MEXICO:				
Wheat	3	3	-----	10
All other and unclassified	-----	14	2	11
Total	3	17	2	21
WEST COAST CENTRAL AMERICA/MEXICO TO EAST COAST SOUTH AMERICA. (No single outstanding commodity in this trade route.)				
WEST COAST CENTRAL AMERICA/MEXICO TO CRISTOBAL, C.Z.:				
Coffee	7	13	7	12
Cotton, raw	9	21	31	8
Lumber	1	5	4	1
Oilseeds	1	1	1	2
All other and unclassified	4	5	2	4
Total	22	45	45	27
WEST COAST CENTRAL AMERICA/MEXICO TO WEST INDIES:				
Beans, edible	11	5	12	8
Peas, dry	-----	1	1	2
All other and unclassified	4	3	6	1
Total	15	9	19	11

Table 25.—Important Commodity Shipments Over Principal Trade Routes—Pacific to Atlantic—Continued

[Thousands of long tons]

	<i>Fiscal year</i>			
	1958	1957	1956	1955
WEST COAST CENTRAL AMERICA/MEXICO				
TO EUROPE:				
Coffee-----	40	38	33	18
Cotton, raw-----	63	38	105	46
Lumber-----	8	4	9	6
Oilseeds-----	28	65	78	55
All other and unclassified-----	26	20	18	18
Total-----	<u>165</u>	<u>165</u>	<u>243</u>	<u>143</u>
WEST COAST SOUTH AMERICA TO EAST COAST				
UNITED STATES:				
Bananas-----	477	468	505	476
Beans, edible-----	3	4	5	6
Canned food products-----	7	8	8	8
Chemicals, unclassified-----	4	12	6	4
Cocoa-----	15	13	13	21
Coffee-----	192	178	203	185
Cotton, raw-----	6	2	6	7
Fertilizers, miscellaneous and unclassified-----	22	6	9	4
Fruit, fresh-----	11	9	8	9
Iron and steel manufactures-----	21	1	2	
Lumber-----	15	5	3	2
Metals:				
Copper-----	192	242	193	206
Lead-----	46	30	25	25
Zinc-----	20	31	8	5
Other and unclassified-----	3	2	3	1
Molasses-----	30	30	27	19
Nitrate of soda-----	469	468	495	597
Oilseeds-----	1	-----	4	3
Ores:				
Antimony-----	2	3	3	3
Copper-----	24	19	29	36
Iron-----	5, 294	3, 981	3, 025	2, 978
Lead-----	31	22	38	18
Manganese-----	46	33	26	24
Tin-----	11	11	24	37
Zinc-----	92	113	126	111
Other and unclassified-----	13	80	48	23
Sugar-----	67	46	48	62
Vegetables, dry-----	2	5	3	2
Wool-----	2	4	3	3
All other and unclassified-----	184	62	1	3
Total-----	<u>7, 292</u>	<u>5, 888</u>	<u>4, 897</u>	<u>4, 878</u>
WEST COAST SOUTH AMERICA TO EAST COAST				
CANADA:				
Ore, iron-----	-----	-----	10	9
All other and unclassified-----	1	1	-----	-----
Total-----	<u>1</u>	<u>1</u>	<u>10</u>	<u>9</u>
WEST COAST SOUTH AMERICA TO EAST COAST				
CENTRAL AMERICA/MEXICO:				
Nitrate of soda-----	10	2	2	-----
All other and unclassified-----	2	3	3	-----
Total-----	<u>12</u>	<u>5</u>	<u>5</u>	-----

Table 25.—Important Commodity Shipments Over Principal Trade Routes—Pacific to Atlantic—Continued

[Thousands of long tons]

	Fiscal year			
	1958	1957	1956	1955
WEST COAST SOUTH AMERICA TO EAST COAST				
SOUTH AMERICA:				
Chemicals, unclassified-----	4	1	12	7
Ore, miscellaneous-----	5	12	9	7
Petroleum and products:				
Fuel-diesel oil-----		51	27	
Gasoline-----		15	4	3
Rice-----	18	-----	-----	1
Sugar-----	10	12	8	18
All other and unclassified-----	23	6	8	19
Total-----	60	97	68	55
WEST COAST SOUTH AMERICA TO CRISTOBAL, C. Z.:				
Coffee-----	7	3	1	2
Petroleum and products: Fuel oil-----		31	-----	
All other and unclassified-----		7	11	7
Total-----	7	41	12	9
WEST COAST SOUTH AMERICA TO WEST INDIES:				
Nitrate of soda-----	6	14	16	19
Petroleum and products: Fuel-diesel oil-----		21	18	9
All other and unclassified-----	26	17	10	7
Total-----	32	52	44	35
WEST COAST SOUTH AMERICA TO EUROPE:				
Ammonium compounds-----	10	-----	12	11
Bananas-----	268	195	148	138
Beans, edible-----	13	14	15	16
Canned food products-----	4	10	10	6
Cocoa-----	7	8	6	5
Coffee-----	42	31	43	27
Cotton, raw-----	66	77	67	47
Fertilizers, miscellaneous and unclassified-----	63	34	25	9
Fruit, fresh (except bananas)-----	18	10	8	10
Lumber-----	5	2	4	8
Metals:				
Copper-----	247	230	186	197
Lead-----	24	28	29	32
Zinc-----	14	6	8	9
Other and unclassified-----	3	4	2	5
Metal, scrap-----	4	21	8	1
Nitrate of soda-----	502	373	543	562
Oil, whale-----	1	25	-----	37
Oilseeds-----	47	36	39	43
Ores:				
Copper-----	52	66	53	63
Iron-----	1,064	1,009	580	125
Lead-----	2	8	16	14
Manganese-----	6	4	6	7
Tin-----	68	53	50	44
Zinc-----	49	99	122	91
Other and unclassified-----	9	8	12	20

Table 25.—Important Commodity Shipments Over Principal Trade Routes—Pacific to Atlantic—Continued

[Thousands of long tons]

WEST COAST SOUTH AMERICA TO EUROPE—	Fiscal year			
	1958	1957	1956	1955
Continued				
Peas, dry	6	11	8	3
Petroleum and products:				
Crude oil	124	239	140	128
Fuel-diesel oil	1	6	38	50
Rice	8	8	8	6
Sugar	62	123	120	60
Sulfur		12	25	35
Vegetables, dry	13	13	14	13
Wines	2	4	8	6
Wool	4	10	6	2
All other and unclassified	124	33	37	30
Total	2,932	2,810	2,396	1,860
WEST COAST SOUTH AMERICA TO ASIA:				
Petroleum and products: Fuel-diesel oil			15	
Nitrate of soda	58		110	10
Sugar	10	10	16	10
Total	68	10	141	20
BALBOA, C.Z., TO WEST INDIES. (No single outstanding commodity in this trade route.)				
BALBOA, C.Z., TO EUROPE. (No single outstanding commodity in this trade route.)				
HAWAIIAN ISLANDS TO EAST COAST UNITED STATES:				
Canned fruit	311	294	319	324
Metal, scrap	4	5	6	6
Molasses	16			32
Sugar	112	226	303	267
All other and unclassified	12	15	25	15
Total	455	540	653	644
HAWAIIAN ISLANDS TO CANADA: Canned fruit	9			6
HAWAIIAN ISLANDS TO EUROPE:				
Canned fruit	37	36	19	9
All other and unclassified	15	15		
Total	52	51	19	9
OCEANIA TO EAST COAST UNITED STATES:				
Dairy products, refrigerated	10	9	6	6
Meats, refrigerated	43	8	4	4
Metals:				
Iron		2		
Lead	65	83	44	44
Other and unclassified	3	10	3	4
Ores:				
Chrome	67	34	56	8
Manganese	28	11	9	6
Zinc			27	
Other and unclassified	55	45	2	14

Table 25.—Important Commodity Shipments Over Principal Trade Routes—Pacific to Atlantic—Continued

[Thousands of long tons]

	<i>Fiscal year</i>			
	1958	1957	1956	1955
OCEANIA TO EAST COAST UNITED STATES—				
Continued				
Sand	5	38	39	26
Skins and hides	14	15	19	15
Wool	43	41	59	55
All other and unclassified	18	33	17	16
Total	<u>351</u>	<u>329</u>	<u>285</u>	<u>198</u>
OCEANIA TO EAST COAST CANADA:				
Fruit, dried	11	11	12	13
Meats, refrigerated	12	6	8	3
Sugar	126	104	92	90
Wool	4	6	10	7
All other and unclassified	11	9	18	14
Total	<u>164</u>	<u>136</u>	<u>140</u>	<u>127</u>
OCEANIA TO WEST INDIES:				
Canned food products	6	8	6	5
Flour	2	7	2	2
Meats, refrigerated	10	8	7	11
All other and unclassified	15	15	11	9
Total	<u>33</u>	<u>38</u>	<u>26</u>	<u>27</u>
OCEANIA TO EUROPE:				
Barley				1
Canned food products	56	80	42	49
Copra	87	144	96	78
Dairy products, refrigerated	238	265	224	216
Fruit, fresh	37	46	30	20
Meats, refrigerated	279	474	336	285
Metals:				
Lead	7	26	5	8
Zinc		17	4	7
Other and unclassified	6	3	4	3
Metal, scrap	8	13	10	5
Ores:				
Chrome		2	19	6
Zinc	12	19	2	3
Other and unclassified	3	79	12	3
Peas, dry	5	6	4	5
Phosphates	79	109	99	150
Seeds, except oilseeds	8	18	5	9
Skins and hides	25	31	19	19
Sugar	94	218	43	46
Tallow	27	32	33	21
Vegetable oil, coconut	26	29	20	25
Wheat		15	11	
Wool	167	246	150	146
All other and unclassified	44	96	29	39
Total	<u>1,208</u>	<u>1,968</u>	<u>1,197</u>	<u>1,144</u>

Table 25.—Important Commodity Shipments Over Principal Trade Routes—Pacific to Atlantic—Continued

[Thousands of long tons]

	Fiscal year			
	1958	1957	1956	1955
ASIA TO EAST COAST UNITED STATES:				
Canned food products	70	94	72	50
Chemicals, unclassified	6	5	5	8
Copra	41	69	82	89
Fibers, miscellaneous and unclassified	5	6	5	3
Fish, refrigerated	7	7	6	5
Groceries, unclassified	9	10	6	8
Hemp, unmanufactured	19	23	20	16
Iron and steel manufactures	39	19	46	41
Lumber	118	118	137	85
Machinery	12	8	12	9
Metal, scrap				1
Metals, various	18	20	13	9
Molasses				16
Ores:				
Chrome	305	417	512	325
Iron	2	12	33	23
Manganese	48	43	49	27
Tin	6	3	9	7
Other and unclassified	10	3	7	4
Porcelainware	60	55	48	40
Rubber, crude	106	115	102	120
Sugar	577	697	791	714
Textiles	49	35	51	33
Vegetable oils:				
Coconut	71	84	68	63
Other and unclassified	3	2	2	2
All other and unclassified	251	241	205	181
Total	1,832	2,086	2,281	1,879
ASIA TO EAST COAST SOUTH AMERICA:				
Chemicals, unclassified	4	3	2	6
Copra	76	75	75	75
Iron and steel manufactures	53	55	158	134
Machinery	6	4	3	4
Metal, iron			17	7
Tinplate	8	15	6	
All other and unclassified	4	41	45	21
Total	151	193	306	247
ASIA TO CRISTOBAL, CANAL ZONE. (No single outstanding commodity in this trade route.)				
ASIA TO WEST INDIES:				
Iron and steel manufactures	4	3	2	12
Petroleum and products:				
Gasoline	8	36	—	5
Other and unclassified				5
All other and unclassified	23	26	18	13
Total	35	65	20	35

Table 25.—Important Commodity Shipments Over Principal Trade Routes—Pacific to Atlantic—Continued

	Fiscal year			
	1958	1957	1956	1955
ASIA TO EUROPE:				
Canned food products-----		35	11	5
Copra-----		8	-----	-----
Fertilizers, miscellaneous and unclassified-----	1	4	5	-----
Iron and steel manufactures-----	1	4	7	1
Lumber-----	13	43	36	13
Porcelainware-----	2	5	2	1
Textiles-----	5	21	4	3
All other and unclassified-----	38	59	33	28
Total-----	60	179	98	51
ASIA TO AFRICA:				
Iron and steel manufactures-----		6	13	8
Textiles-----	2	17	16	6
All other and unclassified-----	1	11	14	4
Total-----	3	34	43	18
ANTARCTICA (WHALING GROUNDS) TO EAST COAST UNITED STATES:				
Whale oil-----	8	-----	8	2
All other and unclassified-----	-----	-----	-----	-----
Total-----	8	-----	8	2
ANTARCTICA (WHALING GROUNDS) TO EUROPE:				
Whale oil-----	74	35	35	37
All other and unclassified-----	-----	-----	-----	-----
Total-----	74	35	35	37

Table 26.—Small Vessels¹ Transiting Canal

	Fiscal year 1958			Fiscal year 1957
	Atlantic to Pacific	Pacific to Atlantic	Total	
Commercial (tolls paying):				
Number of transits:				
Assessed on net tonnage-----	418	332	750	899
Assessed on displacement tonnage-----	-----	-----	-----	9
Total transits-----	418	332	750	908
Panama Canal net tonnage-----	30,405	28,509	58,914	83,475
Displacement tonnage-----				3,135
Tolls-----	\$23,379	\$24,240	\$47,619	\$69,468
Cargo (long tons)-----	6,503	12,207	18,710	25,295
Government (tolls credit):				
Number of transits:				
Assessed on net tonnage-----	86	124	210	222
Assessed on displacement tonnage-----	61	66	127	159
Total transits-----	147	190	337	381
Panama Canal net tonnage-----	7,116	8,815	15,931	19,992
Displacement tonnage-----	5,718	4,597	10,315	10,926
Tolls-----	\$8,916	\$9,456	\$18,372	\$22,649
Cargo (long tons)-----	-----	-----	-----	167
Combined commercial/Government:				
Number of transits:				
Assessed on net tonnage-----	504	456	960	1,121
Assessed on displacement tonnage-----	61	66	127	168
Total transits-----	565	522	1,087	1,289
Panama Canal net tonnage-----	37,521	37,324	74,845	103,467
Displacement tonnage-----	5,718	4,597	10,315	14,061
Tolls collected or credited-----	\$32,295	\$33,696	\$65,991	\$92,117
Cargo (long tons)-----	6,503	12,207	18,710	25,462

¹ Includes vessels under 300 net tons, Panama Canal measurement (or under 500 displacement tons for vessels assessed on displacement tonnage). This traffic is not included in any of the summaries of oceangoing traffic.

Table 27.—Water Supply and Expenditures

	Fiscal year		Percent of expenditures fiscal year	
	(Acre-feet)		1958	1957
			1958	1957
MADDEN AND GATUN LAKE WATER SUPPLY:				
Total runoff Madden Lake basin-----	1, 602, 546	1, 802, 136	-----	-----
Evaporation from Madden Lake-----	48, 828	51, 194	-----	-----
Available for Madden Lake uses-----	1, 553, 718	1, 750, 942	-----	-----
Total runoff, Gatun Lake (area below Madden)-----	2, 267, 906	2, 781, 198	-----	-----
Subtotal-----	3, 821, 624	4, 532, 140	-----	-----
Evaporation from Gatun Lake-----	439, 301	456, 818	-----	-----
Available for Gatun Lake uses-----	3, 382, 323	4, 075, 322	-----	-----
MADDEN LAKE WATER EXPENDITURES:				
Madden hydroelectric power-----	1, 166, 528	1, 357, 966	83	65
Madden spillway discharge-----	127, 709	736, 869	17	35
Total Madden Lake expenditures-----	1, 294, 237	2, 094, 835	100	100
Madden Lake volume-----	459, 435	214, 509	-----	-----
Gain or loss in storage-----	+244, 926	-343, 893	-----	-----
GATUN LAKE WATER EXPENDITURES:				
Gatun hydroelectric power-----	1, 459, 344	1, 215, 725	49	26
Gatun and Pedro Miguel lockages-----	1, 462, 925	1, 384, 895	49	29
Municipal and other uses-----	55, 303	55, 440	1	1
Subtotal, Gatun uses-----	2, 977, 572	2, 656, 060	99	56
Gatun spillway discharge-----	90, 817	2, 082, 553	1	44
Total Gatun Lake expenditures-----	3, 068, 389	4, 738, 613	100	100
Net annual runoff, Gatun Lake basin-----	3, 382, 323	4, 075, 322	-----	-----
Gatun Lake volume-----	3, 975, 459	3, 906, 451	-----	-----
Gain or loss in storage-----	+69, 008	-319, 398	-----	-----

Table 28.—Dredging Operations

Location	Cubic yards		
	Earth	Rock	Total
CANAL PRISM DREDGING:			
Atlantic entrance maintenance-----	599, 400	153, 300	752, 700
Gatun Lake maintenance-----	997, 000	30, 000	1, 027, 000
Gaillard Cut maintenance-----	73, 600	89, 100	162, 700
Pacific entrance maintenance-----	89, 200	75, 500	164, 700
Total, Canal prism-----	1, 759, 200	347, 900	2, 107, 100
AUXILIARY AND CONSTRUCTION DREDGING:			
Cristobal outer harbor, west anchorage-----	2, 781, 200	-----	2, 781, 200
Project No. 14 (bend 1868), Gaillard Cut-----	14, 500	253, 900	268, 400
East diversion, Mindi River-----	84, 000	-----	84, 000
Total, auxiliary and construction-----	2, 879, 700	253, 900	3, 133, 600
Grand total:			
Fiscal year 1958-----	4, 638, 900	601, 800	5, 240, 700
Fiscal year 1957-----	4, 707, 100	303, 500	5, 010, 600

Table 29.—Electric Power Generated

	Fiscal year	
	1958	1957
Gross power generated:		
Gatun hydro station-----	84,021,200	71,371,900
Madden hydro station-----	125,151,500	163,860,500
Diesel stations-----	41,004,380	19,742,700
Total generated-----	250,177,080	254,975,100
Consumed in station service-----	3,440,674	2,971,379
Net generator output-----	246,736,406	252,003,721
Distributed to consumers-----	222,640,477	229,108,926
System losses:		
Kilowatt-hours-----	27,536,603	25,866,174
Percent-----	11.1	10.1
Peak load (kilowatts)-----	44,100	43,600
Date-----	Dec. 3, 1957	Sept. 7, 1956
System load factor (percent)-----	64.8	66.8

Table 30.—Number of Full-Time Employees Paid at U.S. Rates

	As of—	
	June 30, 1958	June 30, 1957
ADMINISTRATION AND GENERAL:		
President's office-----	45	43
Office of the secretary-----	6	6
Comptroller's office and staff-----	219	211
Administrative Branch-----	34	41
Personnel Bureau-----	61	62
Subtotal, administration and general-----	365	363
OPERATING ORGANIZATIONS:		
Canal and allied Maritime operations:		
Marine Director-----	9	9
Locks-----	409	414
Locks overhaul-----	36	10
Navigation-----	244	244
Ferry service-----	21	21
Vessel repairs-----	181	178
Dredging-----	99	85
Meteorology and hydrography-----	14	14
Harbor terminals-----	83	77
Marine bunkering-----	43	43
Hotel Washington-----	0	1
Subtotal, canal and allied maritime operations-----	1,139	1,096

Table 30.—Number of Full-Time Employees Paid at U.S. Rates—
Continued

	<i>As of—</i>	
	<i>June 30, 1958</i>	<i>June 30, 1957</i>
OPERATING ORGANIZATIONS:—Continued		
Supporting operations:		
Printing plant	11	9
Duplicating unit	0	2
Engineering and Construction Director	13	11
Power conversion project	16	10
Engineer and design services	95	88
Contract and inspection	17	19
Electrical work	124	124
Power system	65	65
Communications system	39	37
Maintenance work	120	121
Water system	53	51
Supply and Community Services Director	7	0
Supply and Employee Services Director	0	5
Supply Division, General Manager	31	0
Procurement, United States	34	0
Retail stores	75	95
Service centers	21	26
Storehouses	18	27
Employee housing	16	17
Grounds branch	13	0
Grounds maintenance	0	13
Public buildings	1	0
Buildings	0	1
Tivoli Guest House	3	3
Transportation and Terminals Director	4	4
Freight agent, Panama	4	5
Railroad:		
Maintenance	33	31
Transportation	34	38
Motor transportation	62	61
General Manager, New York Operations	42	40
Procurement, United States	0	35
Steamship line	300	300
Subtotal, supporting operations	<u>1, 251</u>	<u>1, 238</u>
Total Panama Canal Company (Canal Zone)	2, 373	2, 316
Total Panama Canal Company (United States)	382	381
Grand total Panama Canal Company	2, 755	2, 697

	As of—	
	June 30, 1958	June 30, 1957
ADMINISTRATION AND GENERAL:		
President's office-----	1	1
Office of secretary-----	0	0
Comptroller's office and staff-----	75	51
Administrative Branch-----	25	35
Personnel Bureau-----	36	31
Subtotal, administration and general-----	<u>137</u>	<u>118</u>
OPERATING ORGANIZATIONS:		
Canal and allied maritime operations:		
Marine Director-----	1	1
Locks-----	797	856
Locks overhaul-----	251	2
Navigation-----	1, 089	1, 177
Ferry service-----	67	70
Vessel repairs-----	261	263
Dredging-----	524	448
Meteorology and hydrography-----	29	29
Harbor terminals-----	1, 652	1, 655
Marine bunkering-----	95	94
Hotel Washington-----	0	5
Subtotal, canal and allied maritime operations-----	<u>4, 766</u>	<u>4, 600</u>
Supporting Operations:		
Printing plant-----	66	59
Duplicating unit-----	0	10
Engineering and Construction Director-----	0	0
Power conversion project-----	0	0
Engineering and designs services-----	84	69
Contract and inspection-----	2	2
Electrical work-----	129	133
Power system-----	75	78
Communications system-----	19	18
Maintenance work-----	579	532
Water system-----	60	59
Supply and Community Services Director-----	0	0
Supply and Employee Services Director-----	0	0
Supply Division, General Manager-----	53	0
Procurement, United States-----	0	0
Retail stores-----	868	891
Service centers-----	183	189
Storehouses-----	190	198
Employee housing-----	62	71
Grounds Branch-----	405	0
Grounds maintenance-----	0	394
Public buildings-----	76	0
Buildings-----	0	80
Tivoli Guest House-----	47	48

Table 31.—Number of Full-Time Employees Paid at Canal Zone Wage Rates—Continued

	<i>As of—</i>	
	<i>June 30, 1958</i>	<i>June 30, 1957</i>
OPERATING ORGANIZATIONS—Continued		
Transportation and Terminals Director	0	0
Freight agent, Panama	58	60
Railroad:		
Maintenance	126	131
Transportation	91	98
Motor transportation	305	307
Steamship line	10	9
Subtotal, supporting operations	3,488	3,436
Total Panama Canal Company (Canal Zone)	8,381	8,145
Total Panama Canal Company (United States)	10	9
Grand total Panama Canal Company	8,391	8,154

CANAL ZONE GOVERNMENT

Balboa Heights, C.Z.

OFFICE OF THE GOVERNOR

January 5, 1959

The Honorable THE SECRETARY OF THE ARMY,
Washington, D.C.

MY DEAR MR. SECRETARY: I have the honor to submit
the seventh annual report of the Governor of the Canal
Zone reviewing the fiscal year ended June 30, 1958.

Very respectfully,


W. E. POTTER,
Governor.



Introduction

CANAL ZONE GOVERNMENT

The Canal Zone Government is an independent agency of the executive branch of the Government, directly under the President of the United States, but by the delegation [of responsibility] the Secretary of the Army represents the President in the supervision of Canal Zone Government affairs. Administrative and executive authority is vested in a Governor who is also ex officio President of the Panama Canal Company. The Governor is appointed by the President of the United States with the approval of the Senate.

The Canal Zone Government includes the usual functions of government and public health, including civil affairs, schools, libraries, postal service, magistrates' courts, police and fire protection, hospitals and other health services, and highways and sewers.

The Panama Canal Company, with which the Canal Zone Government is closely interrelated in purposes, organization, and operations, provides administrative, accounting, and personnel management and other services to the Canal Zone Government on a reimbursable basis.

ORGANIZATIONAL CHANGES

There were no major organizational changes during the year; however, effective July 1, 1957, the Land License Unit and License Section were merged into one organizational unit, the License Section.

MAJOR PERSONNEL CHANGES

Maj. Bruno Eisen (USA) (MC) was reassigned to Superintendent, Coco Solo Hospital, effective August 1, 1957, vice Dr. John M. Wilkerson, retired effective July 30, 1957.

Col. Joseph R. Vivas (USA) (MC) was detailed from the U.S. Army as Chief, Medical Service, Gorgas Hospital, effective August 6, 1957, vice Col. Edward A. Cleve (USA) (MC), relieved from duty.

Maj. Benjamin A. Darden was promoted to Chief, Police Division, effective October 1, 1957, vice Maj. Roger W. Griffith, retired effective September 30, 1957.

Capt. Gaddis Wall was promoted to District Police Commander, effective December 29, 1957, vice Maj. Benjamin A. Darden, promoted to Chief, Police Division, effective October 1, 1957.

Lt. Col. Harvey E. Meagher (USA) (MC) was detailed from the U.S. Army January 31, 1958, and assigned to Assistant to Health Director, to replace Lt. Col. David C. Burke (USA) (MC), relieved from duty with the Canal Zone Government, effective February 14, 1958.

Col. Norman H. Wiley (USA), Director, Gorgas Hospital, was relieved from duty with the Canal Zone Government on June 1, 1958.

Mr. Edward I. P. Tatelman, Magistrate, Cristobal, retired June 30, 1958.

Mr. William E. Jones, Fire Chief (Battalion Commander), retired on June 30, 1958.



Chapter I

PUBLIC HEALTH

SANITATION

The Division of Sanitation conducts all phases of environmental sanitation in the Canal Zone, including disease, insect vector, and rat control; malaria control measures; maintenance of sanitary drainage systems, and other sanitary control measures necessary to the welfare of inhabitants living in the Canal Zone.

During this fiscal year the foremost and continuing sanitation problem was the alarming increase in malarial mosquitoes. The resurgence of malaria early in the fiscal year necessitated the development and implementation of intensive countermeasures within the Canal Zone. By the end of June 1958, considerable improvement and progress had been made in the control of *Anopheles albimanus* and the other pest types of mosquitoes. Approximately 135 miles of drainage ditches have been restored or improved on the Atlantic side. Previously neglected breeding foci of mosquitoes have been discovered and drainage and other controls have been instituted.

From an alltime low rate of 0.8 per 1,000 employees in 1956, the malaria incidence increased to 1.5 in fiscal year 1957, and at this fiscal year's end the rate among employees, including recurrent cases, had reached a high of 9.1 per thousand. As in the past years, the greatest number of cases of malaria occurred among employees living in rural or suburban areas of the Republic of Panama, outside Canal Zone Government jurisdiction. The rate among these employees is much higher than that of employees living within sanitized areas. As the percentage of employees living in the Republic increases, the malaria rate will be influenced by the effectiveness of control measures conducted in the Republic of Panama.

A realistic appraisal indicates no real prospects of eradicating malaria in the Canal Zone until virtual eradication has been achieved in Panama. Mosquito control will always remain a continuing project, and malaria eradication in Panama does not include mosquito control. Therefore, there is a continual infiltration of mosquitoes from Panama as well as from outlying Canal Zone mosquito-producing areas. Recent detailed discussion of the Canal Zone's malaria and mosquito control programs with leading international malarialogists and entomologists indicates that the Health Bureau program is sound, and by comparison, very comprehensive and effective.

The rodent population has been controlled at a practicable low level. In addition to the continually maintained poison bait stations, all manholes were baited during the dry season, the most effective period for this phase of extermination. Following the rat-poisoning program, all manholes were sprayed with dieldrin as a roach and dry-season mosquito control measure.

Ship inspections and other procedures in support of maritime quarantine continued at a high frequency. No unusual incidents occurred in this activity during the year.

PREVENTIVE MEDICINE

The Preventive Medicine Section is responsible for matters pertaining to public health, such as control of communicable disease and industrial health problems, infant and child health, and physical standards. The occurrence of a worldwide epidemic of influenza due to the Asian variant of type A influenza virus began to affect the Canal Zone at the beginning of the fiscal period. The number of cases of upper respiratory infections increased rapidly for several months during which time it was estimated that 30 percent of the population was afflicted. Other than an unusual increase in cases of measles and the respiratory infections referred to, there were no further unusual incidences of communicable diseases and no quarantinable diseases occurring on the Canal Zone, or imported to the isthmus during the year.

One of the most active preventive medicine programs for the past several years has been the annual chest X-ray survey of all Canal Zone employees and residents. This year the tuberculosis survey of all employees and residents was accomplished with a total of 12,346 X-rays being taken in comparison with 9,072 in fiscal year 1957. There was 238 X-rays reported as suspicious which included 188 previously known cases. The remaining 120 patients were studied further to determine correct diagnosis. During the year there were 76 new cases of tuberculosis diagnosed, of which 38 were residents of the Republic of Panama, 31 were Canal Zone residents, and 7 were transients.

The poliomyelitis vaccination program continued to expand throughout the year. A total of 15,805 injections was administered to children and adults. There were no cases of poliomyelitis occurring on the Canal Zone during the entire year.

SCHOOL HEALTH

The School Health Section, composed of the school physician assisted by two nurses and two part-time clerical assistants, expanded its activities during the year to include varied allied services in addition to the routine work performed by the group. Physical examinations of students totaling 4,083 were performed in comparison with 3,112 last fiscal year. Visual screening was conducted for 10,361 students, of whom 9,191 were found to have normal vision. The dental survey was modified during the year to include all pupils in the second, fourth, and eighth grades in both the U.S. and Latin American school systems. A total of 2,954 pupils were examined, 2,004 in the U.S. schools and 950 in the Latin American schools, revealing that approximately 47 percent and 30 percent of the pupils, respectively, had no dental cavities. As an adjunct to the overall mission of this division during the year, the Health Section initiated an immunization service among schoolchildren, teachers, and others. The section administered a total of 4,274 injections. It is planned

to expand this service during the coming year to include tetanus, pertussis, and diphtheria, as well as poliomyelitis and smallpox vaccines.

QUARANTINE

Technical supervision and services relating to quarantine matters are the responsibility of this section. Quarantine boarding activities continued as a function of the consolidated boarding party under the administrative direction of the Marine Bureau. During the year, the assignment of a physician as Chief of the Quarantine Section to supervise the training and instruction of boarding officers in quarantine matters resulted in an appreciable improvement in this section. Free or provisional pratique was granted to 8,421 ships during the year in comparison with 5,534 last period. In addition, 455,647 passengers and crew members were processed for quarantine purposes, an increase of 84,567 examinations over last fiscal period. There were 4,132 persons aboard ships vaccinated, and 8,084 passengers and crew members were detained aboard ship for quarantine reasons. Two hundred and thirty-five remand notices were sent to next port of call on vessels for lack of various quarantinable qualifications, or for arrival from plague suspect ports.

USPHS AGENCY

The Division of Preventive Medicine and Quarantine maintains liaison with the U.S. Public Health Service and is responsible for the administration and supervision of the program providing for medical care of American seamen treated in Canal Zone medical facilities as beneficiaries of the U.S. Public Health Service. Under this program medical care was provided for 3,131 seamen, and consisted of 2,877 outpatient visits and 2,596 inpatient hospital-days. During the year a change in policy of the U.S. Public Health Service, permitting local seamen on vessels that do not touch continental U.S. ports to obtain elective care and treatment for chronic illnesses, was initiated. This change accounted for substantial increases in all operational and fiscal phases of this service. This group was previously restricted to emergency care and treatment for acute illnesses as are transient seamen.

VETERINARY ACTIVITIES

This activity is responsible for all veterinary matters relating to food and animal disease control in the Canal Zone. The program is designed to protect the Canal Zone customer against foodborne diseases and subsistence of inferior quality. Inspections of approved food-processing establishments in the Republic of Panama and the Canal Zone totaled 1,228 for the year and included fish and shrimp packing plants, abattoirs, butter, ice cream and cheese manufacturing establishments; beverage bottling, sausage, and milk pasteurizing plants; confectioneries, wholesale markets, farms, meat-packaging units, cold storage depots, and many others.

Ante mortem and post mortem examinations were performed on 3,904 animals slaughtered for food in Panama's abattoir. In addition to the locally slaughtered beef, the veterinary unit controlled

and inspected 138,005 pounds of other beef, 150,037 pounds of lamb, 183,492 pounds of pork, and 1,038,832 pounds of poultry imported for consumption in the Canal Zone. All dairy herds supplying milk to Canal Zone communities were tuberculin tested during the year.

The usual animal disease control activities were carried on during the fiscal period, with rigid controls being exercised over the importation of animals into the Canal Zone, and through the Canal Zone into the Republic of Panama.

As a result of the consolidation of Army and Canal Zone Government animal care activities within the Corozal Animal Hospital that operates in conjunction with the animal quarantine station, an increased workload resulted this fiscal year in all phases of the operation.

Statistical data relating to animals and confinement-days involved in comparison with fiscal year 1957, are given below:

	<i>Fiscal year</i>		<i>Percent increase workload</i>
	<i>1958</i>	<i>1957</i>	
Number of animals admitted:			
Hospital Section-----	1, 501	1, 146	31. 0
Quarantine Section-----	629	497	26. 0
Outpatient clinics-----	6, 439	5, 088	26. 0
 Total animal admissions-----	 8, 569	 6, 731	 27. 0
 Animal confinement-days:			
Imported and local quarantined animals at Corozal and Cristobal units-----	16, 810	16, 235	3. 5
Others confined in Hospital Section-----	6, 649	6, 046	10. 0
 Total animal confinement-days-----	 23, 459	 22, 281	 5. 3

HOSPITALS AND CLINICS

The number of adult patients and patient-days in Canal Zone Government hospitals for the fiscal years 1958 and 1957 was as follows:

	<i>Fiscal year</i>		<i>Percent of actual change</i>
	<i>1958</i>	<i>1957</i>	
Number of adult patients hospitalized:			
Gorgas Hospital-----	9, 223	8, 695	6. 1
Coco Solo Hospital-----	3, 681	3, 490	5. 5
Average length of adult patient stay:			
Gorgas Hospital-----	11. 6	11. 4	1. 8
Coco Solo Hospital-----	9. 3	10. 0	(7. 0)
Adult patient-days:			
Gorgas Hospital-----	99, 207	95, 820	3. 5
Coco Solo Hospital-----	35, 244	34, 210	3. 0
Corozal Neuropsychiatric and Domiciliary Hospital-----	90, 535	95, 896	(5. 6)
Palo Seco Leprosarium-----	43, 356	42, 964	. 9

The death rate from all causes declined from 4.13 per 1,000 population in calendar year 1956 to 3.63 in calendar year 1957. The principal causes of death were arteriosclerotic and degenerative heart diseases. The live birth rate for the Canal Zone decreased slightly in the calendar year 1957, dropping to a rate of 27.95 per 1,000 population in comparison with the 30.20 rate per 1,000 in calendar year 1956.

HIGHLIGHTS

On November 17, 1957, Gorgas Hospital celebrated the 75th anniversary of its founding and the establishment of hospital and medical facilities in the Panama Canal organization. The diamond jubilee was also marked by the issuance of a 3-cent commemorative stamp by the Canal Zone postal service.

Chapter II

PUBLIC EDUCATION

GENERAL DESCRIPTION

The public school system for U.S.-citizen children includes 10 kindergartens; 11 elementary schools with grades 1 through 6; 2 junior high schools, grades 7 and 8; 2 senior high schools, grades 9 through 12; and a junior college, grades 13 and 14.

Public schools for Latin American children include 3 kindergartens; 4 elementary schools with grades 1 through 6; 4 junior high schools, grades 7 through 9; and 2 high schools, grades 10 through 12.

In addition to its regular educational program the schools maintain and operate swimming pools, gymnasiums, playgrounds, and other facilities for child and youth development.

Other educational services performed included adult evening classes and after-school driver-training classes conducted at Balboa and Cristobal. In addition, the observatory at Miraflores was operated during the dry season.

The Latin American schools completed the third year in which instruction in all grades was conducted in Spanish. Considerable progress was made in upgrading the educational qualifications of secondary school staffs, in improving faculty proficiency in the use of the Spanish language, and improving the quality and quantity of textbooks. Thirty-eight Canal Zone teachers attended evening classes at the University of Panama, and 78 teachers and principals enrolled in the summer session there.

ENROLLMENTS

Total day school enrollments increased 3.1 percent over the previous year. The U.S.-citizen school enrollments registered increases in all sections except in the Junior College, grades 13 and 14. An overall increase of 4.6 percent is shown in comparison with 0.9 percent last year.

Latin American enrollments were up very slightly, showing a decided decline in kindergartens, 41.1 percent, and a decline of 2.3 percent in grades 1 through 6. Grades 7 through 12 registered nominal increases of only 0.6 percent.

Enrollment of nonresident, U.S.-citizen tuition students increased from 289 to 333, Panamanian citizens dropped from 237 to 187, and other nationalities dropped from 41 to 30, leaving a total of 550 as compared with 567 last year. There are no tuition students enrolled in the Latin American schools.

	<i>As of Oct. 15—</i>	
	1957	1956
U.S.-citizen schools-----	7,179	6,862
Latin American schools-----	4,028	4,003
Total-----	11,207	10,865

SPECIAL EDUCATION

Special education services for exceptional children were inaugurated this year in the Canal Zone schools. A follow-up study of the survey of handicapped children, initiated in the previous fiscal year, was begun in August 1957. In addition, a speech survey of all second and fourth grade pupils was conducted in the U.S. elementary schools. Of the children examined, 9.74 percent needed speech correction. A school psychologist was added to the special education staff in January 1958.

A speech correction program was begun in September 1957, and studies and recommendations were made preparatory to the establishment of classes for educable mentally handicapped children. Another important phase of the special education program was inaugurated in February 1958 when a special class for physically handicapped children was started in temporary quarters at Gorgas Hospital. Eight teachers from the U.S. schools and six from the Latin American schools were sent to the United States for training in the teaching of exceptional children. With the beginning of the school year in September 1958, considerable expansion is planned for the special education program.

PLANT

Several major plant changes were either completed or underway at the end of the fiscal year. They are: additional dressing room facilities at the Balboa gymnasium, the replacement of Ancon elementary school playshed, construction and alteration of classrooms for handicapped children at Santa Cruz and Balboa; and the construction of Reserve Officers' Training Corps and activities building at Balboa High School. The Cristobal elementary school, located in the Republic of Panama, was closed in June and classes will reopen at Coco Solo in September. Transfer of the Cristobal school facilities will be made to the Republic of Panama in accordance with the provisions of the Remon-Eisenhower treaty.

LIBRARY-MUSEUM

The library, founded in August 1914, soon will enter its 45th year of continuous service to canal officials and employees. The Canal Zone Museum was created during the latter part of 1950 as an adjunct to the library.

Circulation of library materials increased more than 7 percent during the past fiscal year, and there has been an increase of 21 percent in circulation since 1951. A total of 254,046 books, periodicals (including official periodicals), and documents were circulated during the year in comparison with a total of 236,128 last year.

Coordination of library services with the schools was further implemented during the year. Additions were made to the Spanish book stocks in the Latin American branches of the library. These branches continue to attract school and community interest.

During the past year, and as a result of the interest and cooperation of local persons and staff members of the Library of Congress and of the New York Library for the Blind, a library service for the blind was initiated. A procedure has been established for the use of a special-purpose record player and talking-book loan privileges through the Canal Zone Library for those in need of the service and also for the Schools Division special education program.

Chapter III

PUBLIC ORDER AND PROTECTION

POLICE ACTIVITIES

During the fiscal year decisive steps were taken to raise the professional standard of the Canal Zone police. There were no significant changes in the police organization or plant, and the authorized force continued at about the same level as last year. Near the close of the fiscal year arrangements were made for the designation of available male personnel in the customs and postal divisions as auxiliary policemen to supplement the regular police force in the event of severe emergency.

The major activities of the division include highway and townsite patrols by radio cars and motorcycles, launch patrols of lakes and harbors, foot patrols of the jungles, detective investigations, investigations of traffic accidents, and issuing of warning notices. In addition, police personnel locate persons in the Canal Zone who are wanted in Panama for criminal offenses, examine persons for motor vehicle driver's licenses, photograph and fingerprint arrested persons, impound animals and motor vehicles, investigate deaths, operate the penitentiary and the prison for women and minors, and provide special police protection when necessary.

In addition to the usual inservice training programs which were stepped up, more rigid employment, promotion, and job-assignment policies were instituted. A "Code of Ethics and Canons of Police Ethics," promulgated by a committee appointed by the International Association of Chiefs of Police, was adopted and widely distributed during the year.

Comparative statistics tabulated below indicate that arrests and workload in general in the indicated phases declined. The most significant change occurred in the number of arrests made, there being 443 fewer offenses in comparison with last year. The most decided increase in any phase is that in the number of warning tickets issued, an increase of 856 being shown over the comparable number last year. Sixty-two nationalities were represented among those arrested. As usual, nonresidents, mostly Panamanians, were responsible for the bulk of the offenses committed.

Police activity highlights of the year consisted of active participation in the civil defense, Canal Zone-wide alert Opal 1958, with the manning of traffic control points throughout the zone pursuant to the master plan.

Cooperative international relations with Panama continued in a normal trend except during May 1958 when untoward incidents occurred which required special handling.

	<i>Fiscal year</i>	
	1958	1957
<i>Classification of arrests</i>		
Male	4, 238	4, 480
Female	328	529
Total	4, 566	5, 009
Arrests made with warrants	204	268
Arrests made without warrants	4, 362	4, 741
Total	4, 566	5, 009
Residents of Canal Zone	1, 215	1, 417
Residents of Panama	3, 116	3, 390
Transients	235	202
Total	4, 566	5, 009
Charges for misdemeanors	4, 623	5, 097
Charges for felonies	298	267
Total offenses	4, 921	5, 364
Offenses reported to FBI	1, 180	1, 093
Motor patrols made (in miles)	863, 473	842, 000
Traffic accidents investigated	445	506
Warning tickets issued	4, 352	3, 496
Deaths investigated by Coroner	78	82
Daily average prisoners in jail	41	37
Daily average convicts in penitentiary	110	101

COURT ACTIVITIES

The judicial functions of the Canal Zone Government are performed by the Magistrates' Courts. The two courts, each presided over by a magistrate, are in session throughout the year in the Canal Zone, and handle cases for the subdivisions of Balboa and Cristobal. The number of cases handled in the Cristobal court totaled, 1,079, a decrease of 329 from the 1,408 handled in fiscal year 1957. The number of cases handled in the Balboa court decreased slightly, a total of 3,475 compared with 3,488 cases handled in 1957.

A summary of activities at the Magistrates' Courts, Cristobal and Balboa, during fiscal year 1958, in comparison with figures for fiscal year 1957, is shown below:

	<i>Cristobal</i>		<i>Balboa</i>		<i>Total</i>	
	1958	1957	1958	1957	1958	1957
Cases handled:						
Criminal	1, 027	1, 404	3, 440	3, 470	4, 467	4, 874
Civil	52	4	35	18	87	22
Total	1, 079	1, 408	3, 475	3, 488	4, 554	4, 896
Disposition of criminal cases:						
Conviction	919	1, 250	3, 097	3, 156	4, 016	4, 406
Aquittal	35	43	90	121	125	164
Dismissal	26	71	132	93	158	164
Held for District Court	47	40	121	100	168	140
Total	1, 027	1, 404	3, 440	3, 470	4, 467	4, 874
Convictions in which execution of sentence was suspended and defendants placed on probation	78	98	216	293	294	391
Rearrested for violating terms of probation	6	3	19	27	25	30
Fines imposed	\$10, 822	\$15, 295	\$28, 129	\$30, 250	\$38, 951	\$45, 545

PARDON BOARD

The Pardon Board, consisting of 5 members appointed by the Governor, acts in an advisory capacity in consideration of requests submitted by prisoners for executive clemency. The board considered 48 applications for executive clemency during the year, all of which were for commutation of penitentiary and jail sentences to the portion already served. The Governor granted clemency in six of the cases. The board also considered and submitted recommendations on three applications for revocation of orders deporting persons following service of sentences of imprisonment. None of these applications were granted by the Governor.

FIRE PROTECTION

Under the consolidation of all Federal Government structural fire-fighting facilities in the Canal Zone, the Canal Zone Government Fire Division is responsible for all fire protection and fire prevention and for certain lifesaving and rescue operations in the civilian communities of the Canal Zone and on ships in Canal waters; for structural firefighting on military reservations and for fighting brush fires and fires at outlying military sites on the Canal Zone. With the closing of the fire station at Madden Wye on June 28, 1958, there remained in operation 14 stations, 8 on the Pacific side and 6 on the Atlantic side. At the close of fiscal year 1958 there remained 5 volunteer fire companies, each consisting of 10 men.

At the request of Panamanian officials on January 16, 1958, the Canal Zone Fire Division cooperated in the control and extinguishing of a major fire which occurred in the San Miguel section of Panama City.

Statistics on firefighting operations follow:

	Fiscal year 1958		Fiscal year 1957	
	Number of fires	Property loss	Number of fires	Property loss
Panama Canal Company-----	265	\$2,994	378	\$2,557
Canal Zone Government-----	8	239	8	123
Armed Forces-----	260	23,851	314	168,859
Private (including ships)-----	62	44,715	68	271,682
Total-----	595	\$71,799	768	\$443,221
		Fiscal year 1958	Fiscal year 1957	
Calls for emergency aid-----			111	96
Value of property involved in fires-----		\$16,749,018		\$24,067,026

CIVIL DEFENSE

During the year a new Civil Defense and Disaster Relief Plan, establishing civil defense responsibilities within the present normal operating organization of the Company/Government, was approved.

Two national alert exercises were held during the fiscal year—in July 1957 and May 1958. In the 1957 exercise over 500 Company/Government employees took part in the activities on each side of the isthmus, together with 100 members of the volunteer corps. The three control points were mobilized and the technical problems

presented by the exercise were resolved. In the May 6, 1958, activities, Opal 58, a preparedness exercise was held in the Canal Zone; this is the first activity under the new Civil Defense and Disaster Relief Plan.

Plans for the main control center to be located in the Administration Building at Balboa Heights were approved and invitations for bids on its construction were advertised in June 1958. During the year this unit was successful in obtaining funds and supplies from the Federal Civil Defense Administration (FCDA); however, such assistance was discontinued effective July 1, 1958, as a result of a Bureau of the Budget ruling. The survival plan study approved by the Governor and the Federal Civil Defense Administration was eliminated as a result of this decision of the Bureau of the Budget.

During the fiscal year 1958 the civil defense unit participated in two emergency operations occurring in the Republic of Panama. As a result of the disastrous fire in the San Miguel area, Panama, on January 16, 1958, this unit was called upon to handle liaison between Panamanian officials and the Canal Zone agencies and organizations, and aided in the collection of necessities for the destitute.

Again, on May 19, 1958, the Civil Defense Welfare Service of the unit was called upon to provide emergency food and shelter for Canal Zone employees residing in Panama who could not reach their homes as a result of the rioting and civil disturbance that caused a state of siege in Panama.

Chapter IV

POSTS, CUSTOMS, AND IMMIGRATION

POSTAL SYSTEM

The postal system made substantial changes in public service and internal operations during the year.

Principal changes in service to the public included the discontinuance of postal units at Coco Solo and Fort Davis in November and December 1957 as a result of the deactivation of the Naval Station, Coco Solo, and the post of Fort Davis. All activities previously performed at the Coco Solo unit were transferred to the main post office at Cristobal. Effective February 24, 1958, a branch of the Cristobal post office was established at Fort Gulick, C.Z., to serve Headquarters Atlantic Area, U.S. Army Caribbean, the military Latin American School for Ground Forces, military personnel stationed in the Atlantic area, and civilian personnel residing at Fort Gulick.

In August 1957, the mail-handling subunit at Tocumen Airport was closed and the air carriers took over the transportation of incoming and outgoing mails between the airport and the mail handling unit, Balboa. This arrangement permits use of all available flights and reduced the cost of truck transportation of air mails.

A 3-cent postage stamp commemorating the 75th anniversary of the opening of Gorgas Hospital was issued on November 17, 1958.

Operations for the past 2 fiscal years are summarized in the following table:

	<i>Fiscal year</i>	
	<i>1958</i>	<i>1957</i>
Receipts:		
Sale of postage stamps, stamped paper, box rents, and permit handling-----	\$607, 177	\$642, 384
Interest on investments of postal savings-----	167, 000	166, 057
Money order fees collected-----	44, 759	40, 754
Other receipts-----	10, 321	9, 400
 Total receipts-----	 829, 257	 858, 595

Statistics relative to the physical volume of the operations of the Canal Zone Postal System for the past 2 fiscal years are covered in the following table:

	<i>Fiscal year</i>	
	<i>1958</i>	<i>1957</i>
Registered, certified, and insured articles handled:		
Number sent-----	89, 955	96, 816
Number received-----	111, 013	129, 404
Dispatches of surface mail handled:		
Number sent-----	2, 034	2, 062
Number received-----	2, 999	2, 972
Dispatches of airmail handled:		
Number sent-----	11, 398	11, 665
Number received-----	18, 267	18, 200

CUSTOMS, IMMIGRATION, AND SHIPPING COMMISSIONER SERVICES

There were no significant changes in plant or functions in the Customs Division throughout the year. The tabulation shown below indicates decreases in all functions noted except in the number of passengers disembarking from vessels, and the number of U.S. seamen discharged or signed on. The average daily census of immigration cases and the number of detention-days at the Corozal station decreased from 13.7 persons in 1957 to 11.1 persons daily in 1958. Contraband irregularities, resulting from purchases in the Canal Zone by unauthorized persons, excessive purchases, and trespassing in retail stores, were again substantially reduced as a result of the effects of certain treaty provisions.

The following is a statistical summary of the more important items handled by the customs and immigration operation during the fiscal year 1958, together with comparative figures for fiscal year 1957:

	<i>Fiscal year</i>	
	1958	1957
Vessels entered from sea-----	10,677	11,299
Passengers disembarked, vessels-----	15,510	14,004
Passengers disembarked, aircraft-----	14,258	14,324
U.S. seamen discharged or signed on-----	1,234	1,185
Other seamen discharged or signed on-----	4,178	4,451
Number of detention-days, immigration station-----	4,033	4,984
Contraband irregularities investigated -----	321	634

VISAS

During fiscal year 1958, 462 visas were issued by the executive secretary to alien residents of the Canal Zone traveling to the United States. Of these, 4 were quota immigrant visas, 285 were nonquota immigrant visas, and 173 nonimmigrant visas. Fees collected for visas amounted to \$7,233.

Chapter V

LICENSES, INSURANCE, AND ESTATES

LICENSES

On July 1, 1957, the operations of the License Section and the Land License Unit of the Civil Affairs Bureau were consolidated. The activities of the new License Section are under the supervision of the former chief of the Land License Unit.

The mission of the section is to issue, administer, and effect collection of the appropriate fees for vehicular, land, and miscellaneous licenses and permits assigned to the section in conformity with all existing laws, treaties, regulations, policies, and tariffs. Principal types of licenses handled during the fiscal year 1958 as compared with the corresponding figures for fiscal year 1957 are shown below:

	<i>Fiscal year</i>	
	1958	1957
Vehicle licenses-----	13, 303	13, 310
Motor vehicle operators' licenses and permits-----	13, 986	17, 419
Vehicle registrations transferred-----	2, 936	3, 231
Dog licenses-----	2, 055	1, 965
Land licenses in force at year's end-----	740	775
Annual revenue-----	\$187, 818	\$192, 748

INSURANCE

The license fee for insurance companies doing business in the Canal Zone is \$10 per year, with a tax of 1½ percent on premiums collected. At the end of the fiscal year, 32 companies were licensed to write insurance in the Canal Zone. Life insurance companies reported that, as of December 31, 1956, 4,309 policies were in force. During calendar year 1957 a total of 366 policies were issued, while 722 were canceled, leaving a total of 3,953 with an aggregate value of \$17,329,045 in force as of December 31, 1957. Premiums collected on life insurance during calendar year 1957 totaled \$440,963. Claims settled during the year amounted to \$19,750.

During calendar year 1957, premiums received by miscellaneous insurance companies included accident, automobile, liability, fire, surety, fidelity, etc., but excluding life insurance, amounted to \$842,328. Losses paid during the year totaled \$281,388. The tax of 1½ percent on premiums paid by all classes of insurance companies amounted to \$19,238 in comparison with \$18,270 the previous fiscal year.

ADMINISTRATION OF ESTATES

This fiscal year the number of estates settled by the Public Administrator again decreased as a result of Public Law 347, 83d Congress, which simplified the method of payment of moneys due deceased Government employees. Comparative statistics are shown below:

	<i>Fiscal year</i>	
	1958	1957
Number of estates settled-----	15	20
Assets handled-----	\$4,126	\$21,846
Commissions-----	None	\$792

FOREIGN CORPORATIONS

The licensing of foreign corporations to do business in the Canal Zone is shown below. Insurance companies, steamship lines and agencies, contractors, and other corporations are included in this group.

	<i>Fiscal year</i>	
	1958	1957
Foreign corporations licensed-----	172	148
Licenses and filing fees collected-----	\$1,720	\$1,480

Chapter VI

MUNICIPAL IMPROVEMENTS

ROADS, STREETS, AND SIDEWALKS

Construction and maintenance forces of the Panama Canal Company provided services during the year on regular maintenance of roads, streets, and sidewalks, and the maintenance of the Boyd-Roosevelt Trans-Isthmian Highway. A combined length of 118.94 miles of streets and highways was maintained within the Canal Zone, and 45.81 additional miles composing the Boyd-Roosevelt Highway. In addition to the planned repairs on the highway, heavy slides had to be corrected during the year.

MAINTENANCE OF QUARTERS, HOSPITALS, AND PUBLIC BUILDINGS

Routine and special maintenance of all Company/Government owned quarters, hospitals, public buildings, steamplants, and all refrigeration equipment was accomplished throughout the year.

SEWER SYSTEM

Panama Canal Company forces performed regular sewer maintenance during the year on 176.58 miles of sanitary sewers and storm drains, consisting of cleaning and flushing lines, removing obstructions, replacement of defective piping, and the maintenance of six sewer pumps, comminutor, and treatment plant.

Chapter VII

FINANCIAL REPORT AND STATISTICAL DATA

FINANCIAL STATEMENTS AND RELATED SUPPLEMENTARY REPORTS FOR THE YEAR ENDED JUNE 30, 1958

Presented herewith are the financial statements of the Canal Zone Government for the year ended June 30, 1958. These statements, which appear on tables 1 through 4, fairly present the financial condition of the agency at June 30, 1958, and the financial results of its operation for the fiscal year then ended. The accompanying statements have been examined by the internal audit staff of the Panama Canal Company and are subject to audit by the General Accounting Office.

Activities of the agency are financed by congressional appropriation. Operating appropriations are available for obligations only in the year for which the appropriations are made. Capital appropriations are available until expended. The agency's operating accounts are kept on an accrued cost basis, including depreciation of fixed assets, in accordance with generally accepted accounting principles, while the status of appropriated funds is determined on an obligations incurred basis in accordance with Government requirements.

The agency's revenues arise from charges to individuals and other Government agencies using certain of its services. All revenues thus received are turned into the U.S. Treasury as miscellaneous receipts. The excess of total accrued costs, including depreciation, over revenues is payable to the U.S. Treasury by, and treated as an expense of, the Panama Canal Company in accordance with the requirements of section 246 of title 2 of the Canal Zone Code, as amended. All operating and capital appropriations expended by the Canal Zone Government are thus eventually repaid to the U.S. Treasury.

The agency also operates a postal savings and international money order system for the convenience of Canal Zone residents. Funds from this source are invested in U.S. Government securities at rates of interest that cover the 2-percent interest paid to depositors and expenses of the service.

Invested capital

Invested capital consists of fixed assets and inventories of material and supplies less allowances for depreciation and obsolescence of fixed assets, and less the potential liability for employees' accrued leave, which under the law is not an obligation against appropriated funds until paid.

During the year, properties with an appraised market value of \$994,500 were transferred from Canal Zone Government to the Republic of Panama, in accordance with terms of the 1955 treaty between the United States and the Republic of Panama. The excess

of market over book value, in the amount of \$372,540, was transferred to retained revenue of the Panama Canal Company and applied as a reduction of amounts due the U.S. Treasury under statutory obligations of section 246 of title 2 of the Canal Zone Code.

Table 2 shows the status of this fund and appropriated funds at the beginning and end of the year, and summarizes the changes which occurred during the year.

Capital additions

Capital additions for the year amounted to \$838,177. Total depreciation for the year exceeded plant additions by \$157,768. Further details appear on table 4.

Financial results

The net cost of operating Canal Zone Government amounted to \$10,737,194 for the fiscal year ended June 30, 1958, as compared to \$10,135,514 for the preceding fiscal year 1957. The principal factor causing this net increase in costs between the 2 years was the pay increase granted in July of fiscal year 1959, retroactive to January 1958. This retroactive expense is reflected in the accounts as of June 30, 1958. As in the preceding year, net costs, as indicated above, were absorbed as expense of the Panama Canal Company. Further details are set out in table 3 of the accompanying financial statements.

Table 1.—Statement of Financial Condition, June 30, 1958

Assets

CURRENT ASSETS:

Fund balances with U.S. Treasury and cash:

Fund balances in U.S. Treasury checking account-----	\$4, 917, 713
Cash on hand and in transit-----	124, 582
	<hr/>

U.S. Treasury bonds and notes at cost (postal savings and money order funds). (Par value, \$6,250,000; market value, \$5,967,800)-----

	\$5, 042, 295
	<hr/>

Accounts receivable:

U.S. Government agencies-----	452, 065
Others-----	194, 283
Accrued interest receivable on postal fund investments-----	22, 940
	<hr/>

Inventory of hospital supplies-----

137, 382
<hr/>

Other current assets-----

9, 134
<hr/>

Total current assets-----

12, 107, 787
<hr/>

FIXED ASSETS (table 4):

Cost-----	44, 847, 909
Less depreciation and valuation allowances-----	15, 174, 505
	<hr/>
	29, 673, 404
	<hr/>
	41, 781, 191

NOTE.—The Canal Zone Government has outstanding commitments in the amount of \$908,000 under uncompleted construction contracts and unbilled purchase orders, and an estimated liability of about \$147,000 for relief payments to be made to retired alien employees in fiscal year 1959.

Table 1.—Statement of Financial Condition, June 30, 1958—Continued*Liabilities and Equity***CURRENT LIABILITIES:**

Accounts payable:

Panama Canal Company-----	\$1,387,436
Revenues and other recoveries due U.S.	
Treasury-----	1,130,952
Other U.S. Government agencies-----	298,797

Postal money orders payable-----

Less advance deposits with U.S. Post Office	
Department-----	375,356

\$1,387,436

1,130,952

298,797

\$2,817,185

375,356

178,247

197,109

Postal savings deposited:

Savings certificates outstanding-----	5,713,285
Accrued interest payable-----	258,879

5,713,285

258,879

5,972,164

Accrued liabilities:

Salaries and wages-----	725,910
Others-----	146,851

725,910

146,851

872,761

48,018

Other current liabilities-----

Total current liabilities-----

9,907,237

EMPLOYEES' ACCRUED ANNUAL LEAVE (unfunded)**EQUITY OF U.S. GOVERNMENT (table 2):**

Operating funds-----	108,549
Capital funds-----	1,954,619
Invested capital-----	28,046,887

108,549

1,954,619

28,046,887

30,110,055

41,781,191

TABLE 2.—Statement of Changes in Equity of U.S. Government, Year Ended June 30, 1958

	Total	Operating funds	Capital funds	Invested capital
EQUITY AT JUNE 30, 1957:				
Unobligated funds.....	\$1,598,755	-----	\$1,598,755	-----
Obligated funds.....	253,182	\$52,252	200,930	-----
Invested capital:				
Fixed assets, net.....	30,328,054	-----	-----	\$30,328,054
Inventories.....	125,511	-----	-----	125,511
Unfunded liability for employees' accrued leave.....	(1,626,179)	-----	-----	(1,626,179)
Balance at June 30, 1957.....	30,679,323	52,252	1,799,685	28,827,386
INCREASES IN EQUITY:				
Appropriations by the Congress.....	17,468,500	16,468,500	1,000,000	-----
Excess of market over book value of properties transferred to Republic of Panama, Nov. 7, 1957, under 1955 treaty.....	372,540	-----	-----	372,540
Transfers from other U.S. Government agencies, net:				
Various municipal facilities transferred from the Panama Canal Company.....	155,199	-----	-----	155,199
	17,996,239	16,468,500	1,000,000	527,739
DECREASES IN EQUITY:				
Net cost of Canal Zone Government (table 3):				
Accrued funded operating expenses.....	16,344,233	16,344,233	-----	-----
Depreciation for the year.....	995,945	-----	-----	995,945
Increase in liability for employees' accrued leave.....	137,720	-----	-----	137,720
Plant adjustments, net.....	6,037	-----	-----	6,037
Recovery of costs.....	17,483,935	16,344,233	-----	1,139,702
Total net cost for year.....	6,746,741	6,746,741	-----	1,139,702
Other decreases:				
Recovery of costs coverable into U.S. Treasury.....	6,746,741	6,746,741	-----	-----
Transfers to other U.S. Government agencies, net: Water line, Palo Seco Leprosarium, transferred to the Panama Canal Company.....	28,696	-----	-----	28,696
Market value of properties transferred to Republic of Panama, Nov. 7, 1957, under 1955 treaty.....	994,500	-----	-----	994,500
Unobligated operating funds withdrawn by U.S. Treasury.....	56,100	56,100	-----	-----
Adjustment of plant salvage coverable into U.S. Treasury.....	2,276	-----	-----	2,276
	7,828,313	6,802,841	-----	1,025,472
	18,565,507	16,400,333	-----	2,165,174
TRANSFERS BETWEEN FUNDS:				
Capital expenditures.....	-----	-----	(821,508)	821,508
Removal costs on plant retirements.....	-----	-----	(23,558)	23,558
Increase in inventories.....	-----	(11,870)	-----	11,870
	-----	(11,870)	(845,066)	856,936
Net increase or decrease.....	(569,268)	56,297	154,934	(780,499)
EQUITY AT JUNE 30, 1958:				
Unobligated funds.....	1,155,327	-----	1,155,327	-----
Obligated funds.....	907,841	103,549	799,292	-----
Invested capital:				
Fixed assets, net.....	29,673,404	-----	-----	29,673,404
Inventories.....	137,382	-----	-----	137,382
Unfunded liability for employees' accrued leave.....	(1,763,899)	-----	-----	(1,763,899)
Balance at June 30, 1958.....	30,110,055	108,549	1,954,619	28,046,887

Table 3.—Statement of Operations, Year Ended June 30, 1958

	Accrued operating expenses				Net cost of operations borne by Panama Canal Company
	Recoveries	Funded costs	Accrued depreciation	Other nonfund charges and credits	
CIVIL FUNCTIONS:					
Customs and immigration	\$26,342	\$416,875	\$131	-----	\$417,006
Postal service	837,751	1,055,378	5,461	-----	1,060,839
Police protection	10,130	1,545,509	28,569	-----	1,574,078
Fire protection	655,959	992,373	26,806	\$128	1,019,307
Judicial system	40,336	65,371	1,139	-----	66,510
Education	1,732,245	3,184,641	146,756	-----	3,331,397
Public areas and facilities	-----	716,384	595,547	-----	1,311,931
Library	3,155	101,643	-----	-----	101,643
Internal security	-----	103,982	-----	-----	103,982
Other civil affairs:					
Office of Civil Affairs Director	-----	51,331	37	-----	51,368
Civil defense	-----	19,480	753	-----	20,233
Motor vehicle licenses and other fees	109,868	33,757	193	-----	33,950
Total civil functions	3,415,786	8,286,724	805,392	128	9,092,244
HEALTH AND SANITATION:					
Hospitals and clinics:					
Gorgas Hospital and clinics	2,191,269	3,561,091	79,768	153	3,641,012
Coco Solo Hospital and clinics	679,279	1,256,987	47,646	-----	1,304,633
Corozal Mental Hospital	34,916	494,121	11,296	-----	505,417
Palo Seco Leprosarium	138,861	133,424	6,902	-----	140,326
Other public health services:					
Office of Health Director	818	113,848	-----	-----	113,848
Sanitation	-----	321,376	2,982	-----	324,358
Garbage collection	-----	119,000	-----	-----	119,000
Preventive medicine and quarantine	2,938	89,351	-----	-----	89,351
Veterinarian services	39,600	66,861	1,707	-----	68,568
Cemeteries, operation and maintenance	18,486	44,197	1,165	-----	45,362
Total health and sanitation	3,106,167	6,200,256	151,466	153	6,351,875
GENERAL EXPENSES:					
Office of the Governor	-----	60,311	-----	-----	60,311
General and administrative expense	-----	750,000	-----	-----	750,000
Recovery from Armed Forces:					
Portion of general and administrative expenses—consolidation of firefighting facilities	90,125	-----	-----	-----	(90,125)
Net increase in employees' accrued leave	-----	-----	-----	137,720	137,720
Recruitment and repatriation	-----	82,450	-----	-----	82,450
Employees' home leave travel	-----	246,701	-----	-----	246,701
Government buildings and sites	125,254	156,173	23,240	101	179,514
Alien cash relief:					
Expenses	-----	137,975	-----	-----	137,975
Distribution at normal rates to operating activities	-----	(134,339)	-----	-----	(134,339)
Furniture pool operations:					
Expenses	-----	34,685	9,186	-----	43,871
Distributed to operating activities	-----	(44,651)	-----	-----	(44,651)
Canal Zone Government contribution to Federal employees' group life insurance fund	-----	21,934	-----	-----	21,934
Death and disability compensation	-----	18,095	-----	-----	18,095
Retroactive and other compensation adjustments	-----	516,636	-----	-----	516,636
Miscellaneous charges and credits	9,409	11,283	6,661	5,655	23,599
Total general expenses	224,788	1,857,253	39,087	143,476	2,039,816
Total	6,746,741	16,344,233	995,945	143,757	17,483,935
					10,737,194

**Table 4.—Changes in Fixed Assets and Related Allowances for Depreciation and Economic Valuation,
Year Ended June 30, 1958**

	Fixed assets						Allowances for depreciation and economic valuation						Net book value, June 30, 1958
	Balance, June 30, 1957	Current additions	Adjustments	Transfers	Retirements	Balance, June 30, 1958	Current depreciation	Adjustments	Transfers	Retirements	Balance, June 30, 1958		
LAND IMPROVEMENTS:													
Permanent townships.....	\$6,391,231	\$142,872	\$1,229	(\$3,246)	-----	\$6,532,086	\$1,783,658	\$128,715	\$172	(\$725)	-----	\$1,911,820	\$4,620,266
Highways, roads, streets, and sidewalks.....	13,994,191	34,344	113,156	(166,052)	(\$16,850)	13,985,789	6,186,653	328,421	10,086	(123,035)	(\$23,666)	6,378,459	7,580,330
Sewer system.....	4,143,950	196,453	9,545	(\$150)	4,349,828	897,572	104,856	1,073	(\$99)	1,002,532	3,347,296	315,685	502,104
Street lighting system.....	774,435	39,300	-----	(7,826)	(8,140)	817,739	286,398	33,057	4,590	(6,229)	(7,541)	61,536	120,314
Fire hydrant system.....	145,427	-----	47,189	(2,044)	(612)	189,960	62,720	4,766	4,590	(1,536)	(894)	69,646	
Total land improvements.....	25,449,254	432,989	171,119	(179,168)	(25,752)	25,848,452	9,226,701	509,845	15,921	(131,525)	(32,800)	9,678,142	16,170,310
BUILDINGS AND EQUIPMENT:													
Health Bureau.....	7,582,408	151,040	-----	(273,655)	(124,123)	7,335,667	2,020,720	151,466	-----	(126,109)	(126,231)	1,919,846	5,415,821
Schools Division.....	6,533,506	186,909	-----	(109,521)	(4,681)	6,606,213	1,556,969	146,756	-----	(53,734)	(9,696)	1,640,295	4,965,918
General offices and other buildings.....	1,519,487	13,402	-----	259,604	(32,722)	1,759,771	627,999	23,240	-----	135,719	(37,812)	749,116	1,010,625
Police Division.....	350,638	15,661	-----	(18,773)	(332)	527,194	202,891	28,569	-----	(18,773)	(1,719)	214,406	312,788
Postal service.....	201,933	-----	-----	-----	-----	201,933	71,222	5,461	-----	76,583	125,350		
Customs and Immigration.....	239,183	-----	-----	-----	-----	239,183	238,419	131	-----	-----	-----	238,550	633
Fire Division.....	595,973	5,768	(15)	(14,689)	(5,667)	581,370	297,781	22,040	(8)	(6,796)	(5,667)	305,348	276,022
Magistrates' Courts.....	56,840	-----	-----	-----	-----	56,840	21,610	1,139	-----	-----	-----	22,749	34,091
Miscellaneous equipment.....	848	-----	-----	-----	-----	848	253	84	-----	-----	-----	337	511
Experimental gardens.....	9,547	-----	-----	-----	-----	9,547	6,118	384	-----	-----	-----	6,502	3,045
License Section.....	1,949	-----	-----	-----	-----	1,949	905	193	-----	-----	-----	1,098	851
Civil Affairs Director.....	7,364	-----	-----	14,614	(3,264)	18,714	4,360	790	-----	8,787	(3,026)	10,911	7,803
Government furniture and equipment pool.....	90,026	22,346	-----	-----	(553)	111,819	26,169	9,186	-----	-----	(75)	35,280	76,539
Total buildings and equipment.....	17,389,702	385,126	(15)	(142,423)	(171,342)	17,451,048	5,075,316	389,439	(8)	(62,908)	(180,788)	5,221,051	12,229,997
FACILITIES HELD FOR FUTURE USE	1,172,24	-----	(1,087,347)	321,591	-----	385,968	389,542	6,661	(447,191)	194,433	(4,533)	138,912	257,056

STATISTICAL DATA

Personnel data

The U.S.-rate force of the Canal Zone Government numbered 1,143 as of June 30, 1958, in comparison with 1,141 on June 30, 1957. The non-U.S.-citizen force numbered 1,203 as of June 30, 1958, as compared with 1,168 on June 30, 1957. The increase in non-U.S.-citizen employees occurred in the Sanitation Division and was necessary to handle the intensified malaria control campaign.

The number of full-time employees of the Canal Zone Government organization paid at U.S. and Canal Zone rates are shown in the following table:

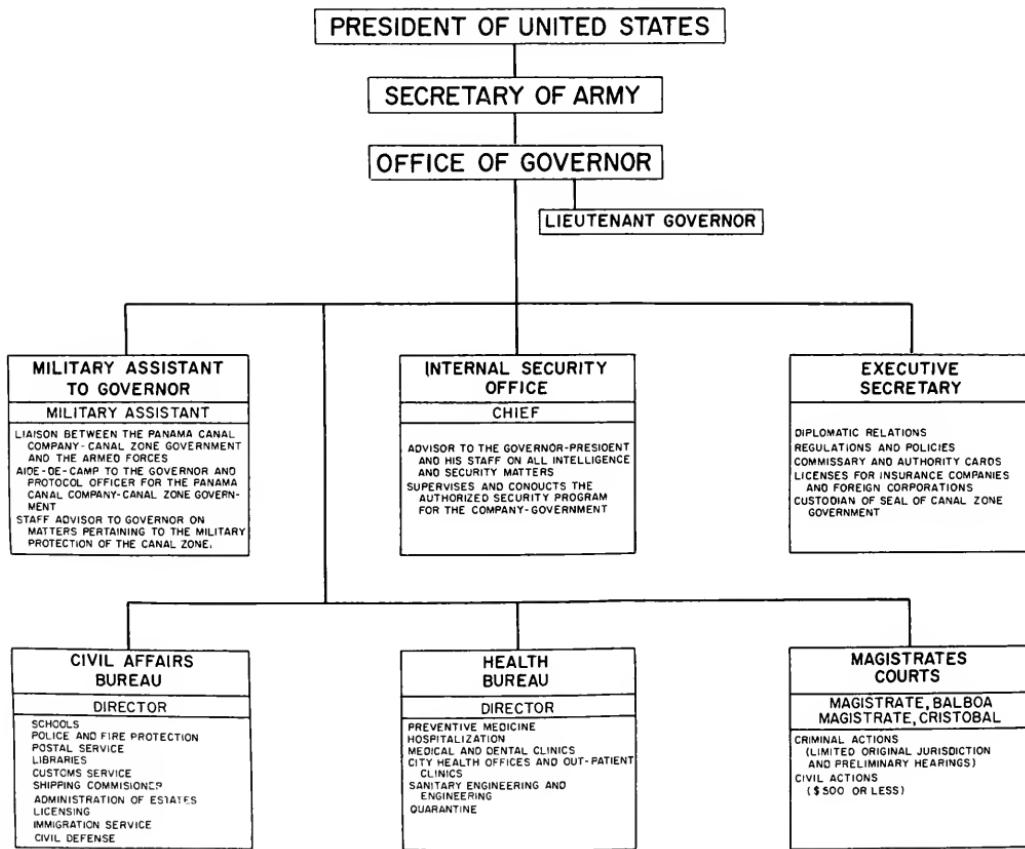
Number of Full-time Employees Paid at United States Rates

Canal Zone Government	As of June 30—	
	1958	1957
Governor's office and staff	18	18
Magistrates' Courts	5	6
Civil Affairs Director	7	8
Postal Division	95	94
Customs Division	49	48
Fire Division	55	56
Police Division	186	183
Libraries	9	8
Licenses	6	6
Schools	288	278
Health Director	9	9
Quarantine and preventive medicine	9	8
Hospitals and clinics	398	412
Sanitation	9	7
Total Canal Zone Government	1,143	1,141

Number of Full-time Employees Paid at Canal Zone Wage Rates

Canal Zone Government	As of June 30—	
	1958	1957
Magistrates' Courts	2	1
Civil Affairs Director:		
Customs Division	12	13
Fire Division	141	147
Police Division	39	39
Libraries	5	4
Licenses	1	1
Schools	247	230
Health Director:		
Quarantine and preventive medicine	6	6
Hospitals and clinics	626	639
Sanitation	124	88
Total Canal Zone Government	1,203	1,168

CANAL ZONE GOVERNMENT



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Area of Canal Zone

The total area of the Canal Zone as of June 30, 1958, with areas segregated for various purposes, is shown in the table below:

	<i>Land area</i>	<i>Square miles</i>
Air Force, Army, and Navy reservations (inclusive of licenses and letters of permission):		
Air Force-----	14. 06	
Army-----	114. 70	
Navy-----	18. 68	
Total-----	147. 44	
Canal Zone townsites and areas outside of townsites in active use-----		11. 78
Miscellaneous assigned land areas:		
Barro Colorado Island-----	5. 71	
Madden Forest Preserve (excluding Madden Road)-----	5. 38	
Cattle pastures-----	2. 50	
Commercial licenses (agricultural leases and garden plots)-----	2. 67	
Total-----	16. 26	
Swamps-----		15. 14
Remaining usable land (largely mountain or jungles)-----		181. 70
Total land area of the Canal Zone-----		372. 32
	<i>Water area</i>	<i>Square miles</i>
Fresh water-----	186. 07	
Tidewater (Atlantic and Pacific within 3-mile limit)-----	89. 45	
Total water area of the Canal Zone-----		275. 52
Total area of the Canal Zone-----		647. 84

where $\lambda = \sqrt{2\pi} \sigma$ and $\sigma = \sqrt{\lambda^2 - \mu^2}$.

For the case of $\mu = 0$, the solution of the equation (1) is given by

$$f(x) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^x e^{-\frac{t^2}{2}} dt = \frac{1}{2} \operatorname{erf} \left(\frac{x}{\sqrt{2}} \right) = \frac{1}{2} \operatorname{erf} \left(\frac{x}{\sqrt{\lambda^2 - \mu^2}} \right)$$

where $\operatorname{erf}(x) = \frac{2}{\sqrt{\pi}} \int_0^x e^{-t^2} dt$ is the error function.

For the case of $\mu \neq 0$, the solution of the equation (1) is given by

$$f(x) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^x e^{-\frac{(t-\mu)^2}{2}} dt = \frac{1}{2} \operatorname{erf} \left(\frac{x-\mu}{\sqrt{\lambda^2 - \mu^2}} \right) = \frac{1}{2} \operatorname{erf} \left(\frac{x-\mu}{\sqrt{\lambda^2 - \mu^2}} \right)$$

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